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Second hand machines and components:

These machines have mainly come from schools and businesses. As such there are various brandings, labels, markings, scratches, very occassional broken bits (e.g. front flaps) on the cases. All machines have been generally cleaned and air dusted inside to get rid of most of the dust, however the cases have not been meticulously cleaned as this would take a long time and increase the prices considerably. Any machines which have PC cards are usually 486 cards, but as these are basically worthless, their value has not been taken into account (and they might not have all the software on the disc to work them anyway). Get free carriage if you also take a monitor (the 'b' indicates an additional £10 carriage charge). Keyboard, mouse and mains cable included. Single slice machines do not have backplanes unless specified. Ethernet cards etc. can be taken out if not required. There is a three month warranty on these machines and they are supplied 'as seen', so to speak. All details are subject to change and please check availability before ordering.

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A7000+, RISC OS 3.71, 24Mb, 1225Mb HD, Combi ethernet card	£80.00b
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RPC 710, RISC OS 3.7, 16+1Mb, 203Mb HD, 10BaseT ethernet card, CD drive	£150.00b
RPC 710, RISC OS 3.7, 16+1Mb, 203Mb HD, Combi ethernet card, CD drive, PC card	£150.00b
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RPC SA, RISC OS 3.7, 20+1Mb, 203Mb HD, Combi ethernet card, CD drive	£300.00b
RPC SA, RISC OS 3.7, 20+1Mb, 203Mb HD, Combi ethernet card, CD drive, PC card	£300.00b
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RPC SA, RISC OS 3.7, 64+1Mb, 203Mb HD, 10BaseT ethernet card, CD drive	£310.00b
RPC SA, RISC OS 3.7, 12+1Mb, 2014Mb HD,Cumana CD,10BaseT ethernet, PC card	£320.00b
RPC SA, RISC OS 3.7, 16Mb, 406Mb HD, Ultimate card & CD drive, Combi ethernet card, XOB Teletext card, backplane	£350.00b
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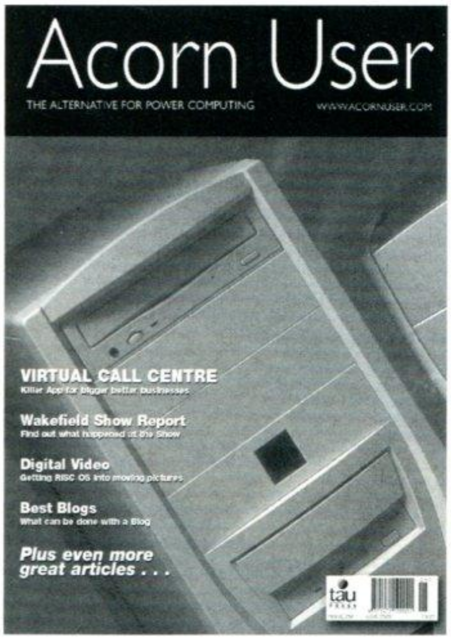
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Editor's Comments

Due to other commitments it is almost impossible for me to personally attend shows. This is a shame because the couple I have attended in the past I have enjoyed. Sometimes they can be very interesting and it seems to me that on this occasion the Wakefield Show was very interesting indeed. But I wasn't there, so I thought I would hand my column over to Steve Turnbull who was there, in the thick of it:

This is not going to be a description of all the different products and product enhancements of those companies who attended the show, we have a Show Report for that and probably a fair proportion of the News too.

Instead let us look at what seems to be happening in the market as a whole: We are heading for a crux.

On the one hand the market seems to be imploding, the number of companies actively operating in the market seems to be decreasing. This is frankly because the people who run the companies, for better or worse, have been as die-hard as the enthusiasts who make up the buying public (within the market itself).

For this reason the number of active companies has been held at an abnormally high level simply because the business owners wanted to be in the market. They were not taking the necessary, business decisions and getting out while the getting was good.

This causes a lot of pain and anguish, both personally and from a business viewpoint. Businesses have to be run properly otherwise they crash and burn. But it is personally painful for a dedicated RISC OS person to let something they care about go.

On the other hand there have been forces building up within the successful RISC OS companies. These activities whether business- or development-wise are coming to fruition and it is all happening at the same time.

It is a crux, it could be explosive or it could fizzle out. Knowing what I know about the various things that are going on I expect the former. An explosive expansion in a number of sectors which will drive those businesses forward and take RISC OS with them.

What we end up with after that I cannot really say. Here's to the RISC OS supernova.

Steve Turnbull

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Supplied as a pack including our PS2MouseMini interface: £99.95inc
Above pack when purchased with PC base unit: £90inc

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Step 3 - Attach your existing RiscPC/A7000 and monitor

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(not to the same scale as the PC! The switchbox is about the same size as 2 kitchen matchboxes)

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We can supply other memory, hard-drives, cables, interfaces, bespoke microcontroller design etc - please contact us for details.....



Hand track trackballs: Standard corded £14.95; Laser corded £19.95; Laser designed for use in presentations etc - they will not cut materials but care

EEK!

Our PS2MouseMini interface allows you to use PS/2 PC mice with your RISC OS machine.
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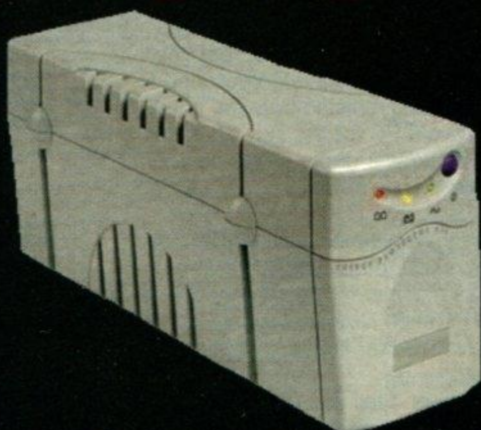
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Device above require PS2MouseMini for use on RiscPC.

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High performance network switches: 5 port = £45inc
8 port = £75inc
Lanman98 = £41inc
Cables and other networking devices available

ArtWorks 2 released

ArtWorks 2 is the latest version of the most popular advanced vector graphics application for RISC OS, originally from Computer Concepts.

Released at this year's Wakefield Show, *ArtWorks 2* is the first complete version of ArtWorks to be produced and published by MW Software. It is also the first version to run natively on Castle's XScale-powered Iyonix computer. *ArtWorks 2* comes with the full set of plug-in modules previously released independently by MW Software. Attractive upgrade offers are available to existing ArtWorks users. Please note that *ArtWorks 2* requires RISC OS 3.5 or higher. It works fine with RISC OS 4, Select and RISC OS 5.

ArtWorks 2 is available for only £169 (inc VAT, plus postage) but this includes the upgrade to version 2.1 when it becomes available.

Upgrades from ArtWorks 1.7 vary between £50 and £125 (inc VAT, plus postage), depending on the set of plug-in modules already purchased. More detailed pricing information and online ordering links can be found by clicking on the "Ordering" tab on the MW Software web site home page.

After this initial release, MW software are now working on the next version, which will be more feature-rich as opposed to merely 32-bit compatible. Some of the announced new features coming in ArtWorks 2.1:

- Page rulers.
- A Skew tool to accompany the Rotate and Scale tools.
- Control of both width and height of arrowheads.
- User-defined dash patterns.
- Configurable default font, font size, join style.
- Control over the distance of text fitted to a curve from the curve.
- Control over the starting offset of text fitted to a curve.
- A print setup tool to select the area of the page to be printed (useful when proofing small parts of a large size document) including the ability to set numeric printing offsets.
- warning about unused sprites in the sprite pool when saving a document.
- Create a new document by choosing from a menu of several standard documents.
- Improved control over graduated fill arrows.
- Text export from text areas.
- Saving JPEGs that are embedded in ArtWorks files.

MW Software have also requested ideas for improvements from the many users of the original Artworks, and are compiling a list of possible new features which may make it into ArtWorks 2.1 or a later revision.
A selection of these are:

- Graduated transparency
- Multi-page handling
- CMYK sprite/CMYK TIFF export
- PNG and JPEG export
- Arrowheads that end with line ends (rather than continuing from line ends as it currently happens)
- Interactive help (at least for the Toolbox)
- Document cleaning option to remove unused sprites and colours
- Path style panel from which a combination of path attributes (line width, line colour and so on) can be applied with a single click

More information on *Artworks 2* can be found on the MW Software Website at **www.mw-software.com**

Alpha not Omega

Microdigital have announced a RISC OS laptop based upon Intel PC hardware and "Virtual Risc PC" from the people who brought us VirtualA5000. With no sign of the long-awaited Riscstation laptop, this may be the only viable solution to those wishing to use RISC OS on the move.

The "Alpha" laptop costs £850+VAT +delivery and comes bundled with Windows XP home edition, RISC OS 4 (licensed from RISC OS Ltd) and a range of Windows and RISC OS software. Full specifications are:

- 2GHz Intel Celeron CPU
- Memory. 256MB SODIMM PC2100 DDR expandable up to 1GB (2 connectors)
- Video memory, 64MB shared memory system
- 13.3 inch TFT display with a maximum resolution of 1024 x 768 supporting 16 million colours
- Storage devices include 15GB Hard disc, 24x Speed CD ROM, 3.5 inch floppy disc drive
- Interfaces are 1 x parallel port ECP/EPP, 1 x PS/2 connector, 1 x video out via 15 way D connector, 2 x jack socket for line out and microphone, 1 x ethernet RJ45 socket, 1 x modem RJ11 socket, 2 x USB sockets
- There is an 86-key keyboard with embedded numeric keypad, 15 functions keys including RISC OS and Windows menu key. Plus:
- Integrated touchpad pointer
- 100Mbit built in Ethernet via RJ11 socket
- Internal 56k internal modem
- Full duplex 16bit stereo wave table sound together with built-in stereo speakers
- 8 cell Lithium Ion rechargeable battery
- 100v-240v mains adaptor

Physically its dimensions are 308mm(w) x 254mm(d) x 37.5mm(h) , and weight 3.2kg including batteries. You also get a carrying case with shoulder strap.

While the Alpha provides an impressive range of connectivity options, it's still unclear how many of these can, and will be able to be used from within the RISC OS "soft" PC environment (such as USB, Networking and so on) and your news editor didn't get an answer to these questions when asking the company themselves at the Wakefield show.

At the Wakefield show, Microdigital did state that their long-overdue Omega was due to ship "within days", although two weeks after the show, when Acorn User went to press, we had not heard of any shipments being received.

New features in RISC OS Select 3

RISC OS Ltd have released full details of the features that will be present in Select 3, the next release of RISC OS. We previewed some of the select features in a previous news slot, but new to the party are the following:
Cut and paste: Both keyboard and mouse can now be used to select text in all writable icons provided by the Window Manager. Such icons can be used with the standard clipboard operations to cut, copy and paste icon contents around.

Images Filer windows: The Filer can now display images as thumbnails, allowing photo albums and other image collections to be browsed more easily.
Improved 'buttons': Action buttons, as well as groups and other 3D-style icons have been improved and may be made round or given colours. Support for button styles is a 'plug in' interface and other clients may provide different button renderings.
Alpha-channel sprites: A new class of sprites has been created for alpha-channel sprites. These sprites can be used wherever the standard sprite operations would be used through system sprite rendering calls. Alpha-channel sprites allow each pixel to have variable translucency, which means that sprites can blend better to their backgrounds.
Recycle bin: Files deleted by the user can, optionally, be sent to a recycling bin from which they can be retrieved if necessary. A new !Recyclone application provides the rubbish bin into which files deleted by the user will be placed. A configuration tool is provided to allow the bin to be expired and its location changed.

Improved !Paint: The Paint application has been updated to support the new alpha-channel sprite format provided by Select 3. Paint can create sprites with alpha-channels, add an alpha-channel to an existing sprite, and allow editing of the alpha-channel.

Paint's user interface has also been brought up to date, with a separate attached toolbox for each sprite (similar to !Draw) so each sprite has it's own "working set" of toolbox settings. Shortcuts for zoom and select colour have been added along with a new colour display area. The menu tree has been revised to be more logical and Style Guide compliant.

Paint makes better use of the ImageFileConvert system in Select 3 and can directly load any filetypes supported by ImageFileConvert (PNG, JPEG, Clear, ICO, BMP and so on). Paint allows saving of an image in JPEG and PNG format as well as sprite.

A good number of bug fixes and performance improvements have also been added along with usability features such as a true graphic brush display and better clipboard support.
New !NetLights application displays network activity on the iconbar.
!Draw can now import any type handled by ImageFileConvert where the type can be converted to a type which is handled natively by Draw. This means that PNG files, Artworks, BMP and other images types can now be imported.

Contact:
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Cardiff,
CF23 9JD
Tel: 029 2049 2324
Fax: 029 2049 2326

Castle unveil Linux on Iyonix

In addition to RISC OS 5, Castle's Iyonix PC is now able to run ARM Linux. Linux for the Iyonix PC is supported by a port of kernel version 2.4.19, although work is already underway to support 2.5, for which changes will be contributed to ARM Linux.

The current version is very much in development, and does not yet support all of the Iyonix PC's hardware. In particular, it requires booting from an NFS or RAM Disc, but presents a usable and stable Linux system. As with ARM Linux on previous RISC OS machines, Linux is presently booted from within RISC OS.

Castle provides a pre-built kernel, patches, and bootloader for parties interested in developing or experimenting with Linux for Iyonix at **www.iyonix.com/linux.html**

Technical support is available, please see Castle's Linux support pages at **www.iyonix.com/linux/support.html**

Given Castles' Iyonix is the world's only X-Scale based desktop computer, it's looking to position the machine as a valuable development platform for people developing code for other X-Scale based hardware such as PDAs and mobile phones.

Wakefield show busiest in years

This year's Wakefield show was the busiest show for a number of years. Held over one day instead of two, to reduce costs for both the organisers and exhibitors, meant long queues on the door, and a packed auditorium for almost the entire duration of the doors being open.
Many exhibitors had long queues forming to purchase software upgrades and see new hardware on offer, while two lucky punters walked off with a Microdigital Omega. See the show report later in this issue for the show news in full.

APDL revives more software

APDL have taken on the marketing and distribution of several former Clares Micro Supplies software titles, many with new lower retail prices.

Topographer is an application both for general use and the Geography curriculum where it allows children (and teachers) to have lots of fun while learning all about maps, contour lines, valleys, rivers, and so on. In fact *Topographer* covers virtually all items found on Ordnance Survey maps.

The real breakthrough with *Topographer* is its 3D section that allows you to convert a 2D map into a 3D model on screen. Imagine turning a set of flat contour lines into a 2D map into a 3D model that clearly shows the hill, you define where you look from, and what you look at.

Topographer also covers aspects of the IT and Maths curriculum with its modelling capabilities. Its key features include:

- Easy and quick entry of all symbols (over 100) onto 2D map
- Easy entry and editing of contour lines using specialised routines
- Definable widths for roads and rivers
- Wooded areas which translate into impressive 3D landscapes
- Map can be saved as Draw file and printed if required
- Definable map size and scale can be linked to the national grid references
- Zoom option that is independent of the scale
- Powerful 3D mode giving a true representation of the landscape
- Definable viewing coordinates, height and angle (numerically or graphically)
- Stunning 3D models that can be saved as a sprite file for use in other applications

Schema 2 is the award-winning spreadsheet previously published by Clares Micro Supplies. Boasting a huge number of professional features, it's also somewhat easier to use than many of the Windows and Mac OS offerings. Full details are available through the

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6 x T026	Photo 810	black	£24.50
6 x T027	Photo 810	photo	£26.44
6 x T028	C50/C60	black	£24.50
6 x T029	C50/C60	colour	£26.44
6 x T0321	C70/C80/C82	black	£29.08
6 x T0322	C70/C80	cyan	£32.31
6 x T0323	C70/C80	magenta	£32.31
6 x T0324	C70/C80	yellow	£32.31
6 x T036	C42	black	£24.68
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6 x T0423	C82	magenta	£32.31
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For Canon

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6 x BC121C	2100	colour	£11.75
6 x BC124Bk	S300	black	£13.75
6 x BC124C	S300	colour	£18.75
6 x BC13Bk	i550	black	£24.91
6 x BC13C	i550	cyan	£22.44
6 x BC13M	i550	magenta	£22.44
6 x BC13Y	i550	yellow	£22.44

For Xerox

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6 x 8R7972	(Y010) M750	cyan	£24.68
6 x 8R7973	(Y102) M750	magenta	£24.68
6 x 8R7974	(Y103) M750	yellow	£24.68

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C6578 45ml



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Example:

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12A1975	Z42/Z52.53	black	£14.50
12A1980	Z11.Z31	colour	£14.95
12A1985	Z11.Z31	colour	£15.25
12A1990	Z22/Z32	photo	£16.50
13619HC	1000/1020	colour	£14.95
13400HC	1000/1020	black	£13.50
15M0120	Z45/Z52.53	colour	£15.94
15M0125	Z45/Z52.53	colour	£16.94
17G0050	Z12/Z22.32	black	£13.50
17G0060	Z12/Z22.32	colour	£14.95

For Hewelett Packard

51625	400/500	colour	£12.50
51626	400/500	black	£9.80
51629	600	black	£9.89
51633	310	black	£9.80
51641	820	colour	£12.95
51645	930/970	black	£9.49
51649	600/610	colour	£14.75
C1816	660/690	photo	£15.94
C1823	710/810	colour	£13.95
C4844	2000	black	£14.95
C6614	610/640	black	£10.25
C6615	810/840	black	£11.50
C6578	930/959	colour	£15.94
C6625	840/843	colour	£14.95

For Canon

BC-01	BJ-10	black	£8.95
BC-02	BJC-250	black	£8.95
BC-05	BJC-250	colour	£12.49
BC-20	BJC-2100	black	£10.49
BC-23	BJC-5000	black	£10.55
BX-3	FAX B100	black	£9.49

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Just Need One?
Example:

for Epson

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1 x S0200191	£3.00
1 x T013	£1.70
1 x T014	£3.00

USBee a fool not to get one!!!

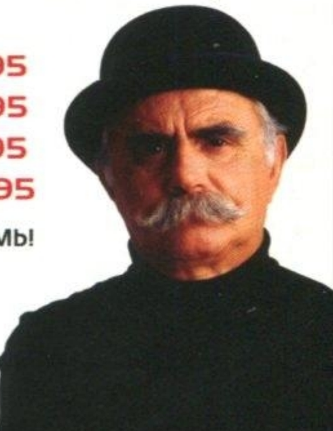
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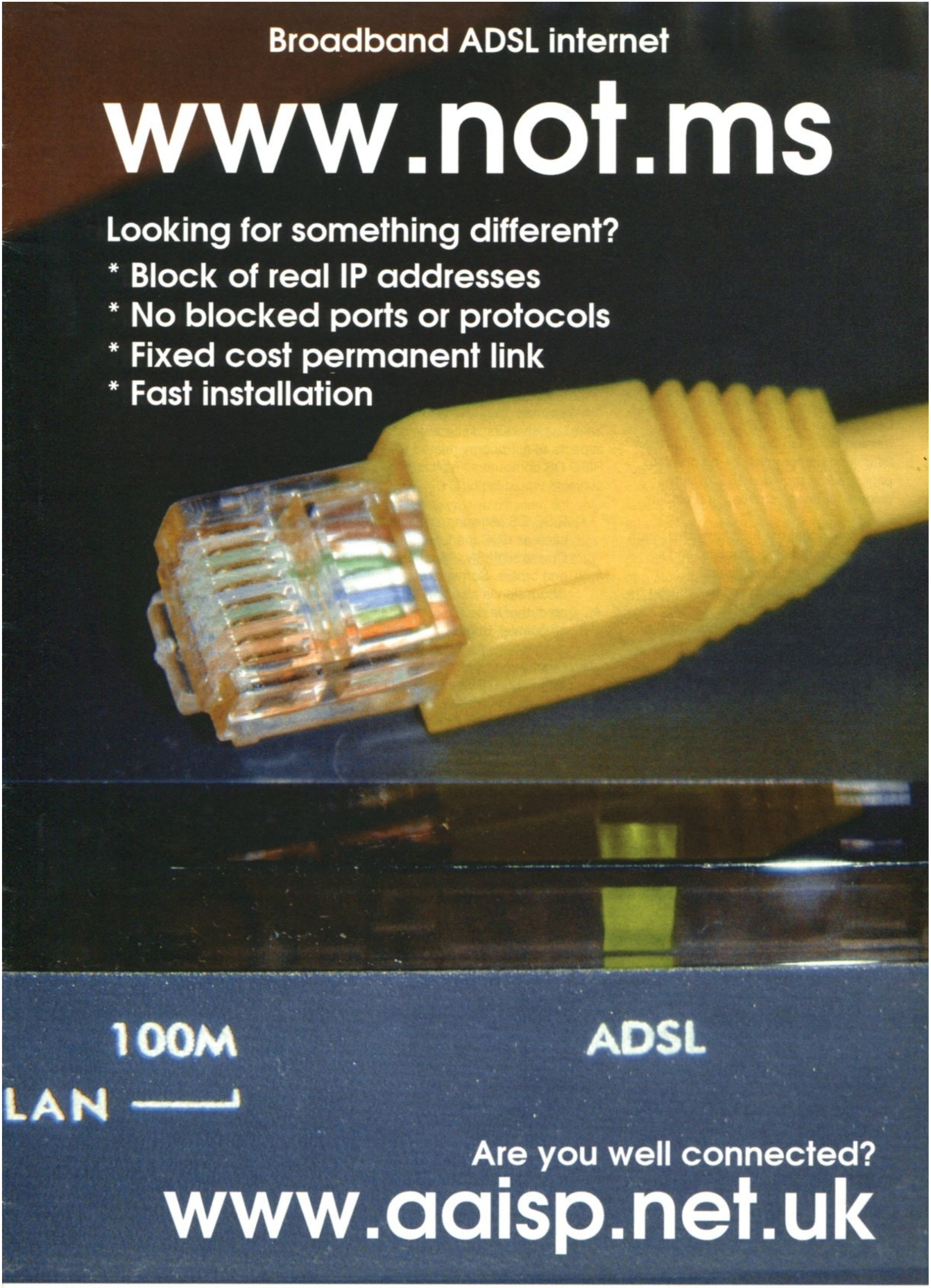
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APDL/ProAction page on the APDL web site; but important details are:

The *SchemeEx* converter is now included as standard

A macro manual is being put together, and will be supplied free to people who purchase from APDL; a charge will be made to others

The new price is just £59; but due to the weight of the manual, purchases from outside the UK will attract a £2 postage cost.

ProArtisan 24 is the latest development in the hugely successful Artisan series. Designed for RISC OS computers running RISC OS 3.5 or later, *ProArtisan 24* is a no compromise 24-bit graphics package that provides 16.7 million colours for image creation and display.

This means that the tools provided, such as chalk, watercolour, pastels, and so on, closely mimic their natural counterparts. These brushes can also be used to render intricate Draw paths, resulting in Draw images rendered in any brush type. If you add to this:

- the ability to load and manipulate full or selected areas of Kodak Photo CD images in 24 Bit colour
- loading of foreign file types such as JPEG, TIFF, PhotoCD, and others
- an exceptional clone spray for photo retouching
- a full range of sprite cutting and pasting facilities with soft edges
- realistic textures
- a full range of image processing filters
- a frisket in conjunction with an 8 bit mask va highly intuitive interface for colour picking
- StrongARM and RISC OS 4 compatible

With all of this together you have a very powerful image editing and processing tool. The new price is just £29, and there is a £1.50 carriage charge for orders outside of the UK. For more information on both packages, e-mail **info@apdl.co.uk**; call 020 8778 2659 or write to APDL, 39 Knighton Park Road, Sydenham, London SE26 5RN.

MelIDI upgrade

A new version of *MelIDI*, the MIDI sequencing package for RISC OS, has been released. *MelIDI* is now into its eighth year of release (and tenth year of development). Version 1.15 fixes a number of outstanding bugs and also adds new features. These include:

- Improved garbage collection and song integrity checking
- Wider range of tempos supported
- Controllers can be mapped on MIDI Thru (e.g. Expression->Filter cutoff)

Further information and upgrades can be found on the *MelIDI* Web site: **www.melidi.co.uk** *MelIDI* is available for purchase from Liquid Silicon **www.liquid-silicon.com**

New Astronomy mailing list

A new e-mail discussion list has been launched for discussion of all aspects of astronomy related to RISC OS computers. Typical subjects would include:

- RISC OS astronomical software such as ROCchart, Copernicus, Orrery, NightSky, MoonTool, XEarth and others. Software development discussion is also welcome, and if an author is on the list (and is amenable), bug reports and suggestions for improvement.
- Processing of astronomical images with RISC OS graphics applications such as Photodesk, Composition, ChangeFSI and others.
- Hardware projects, such as telescope control from RISC OS computers, and using a webcam for astronomical imaging.
- Mathematical astronomy using RISC OS software.
- Porting of open source astronomical software to RISC OS.

All levels of expertise are welcome, from beginners to advanced to astronomers of the armchair variety. And you don't have to own a telescope. The group has a home page at **www.smartgroups.com/groups/roast**

You do not need to access this web site in order to join the list, you can just send an e-mail to: **roast-subscribe@smartgroups.com**

Two databases become 32-bit

They say RISC OS software is like buses...you wait ages for an upgrade then two come along together. This month sees both *Datapower 2* and Impact 3 make the transition to be 26/32-bit neutral which means they will run on both RISC OS 3 and 4, and RISC OS 5 on the Iyonix PC.

R-Comps' *Datapower 2* release includes DPGraph (DataPower's charting add-on) and also the complex client/server modules that allow *DataPower 2* to work in a network environment.

DataPower 2 is a powerful, relational database system, with industry standard SQL support and a friendly "DTP-style" approach to laying things out. This makes it an ideal choice for home or business use. It works on RISC OS 3.1 to RISC OS 5 and there is a database "reader" is available for Windows.

Existing *DataPower 2* users can upgrade to the 32-bit version for £40 which includes joining the Registered User Scheme. More details from:

R-Comp, 22 Robert Moffat, High Legh, Knutsford, Cheshire WA16 6PS

Tel: (+44) 01925 755043
Fax: (+44) 01925 757377
Web: **www.rcomp.co.uk**

Meanwhile Impact 3 from The Fourth Dimension at version 3.20 has had a number of minor bug-fixes and improvements, including password checking of cards. And LabPrint has also been upgraded to be 26/32bit neutral.

If you want to upgrade from version 3.xx to the latest version (v3.20) cost £25 by returning your original disc. To join the *Impact 3* mailing list for *Impact 3* related discussion, please go to **www.cjemicros.co.uk/4d/Circle/**

4D hope to be able to continue to support and improve Impact 3. Any suggestions for new features, improvements and bug reports can be posted to the mailing list.

Impact 3 is an easy to use, fully relational database suitable for any application where data must be stored and retrieved quickly and easily. A database can be created and used within a few minutes of installation, by simple drag and drop methods.

The program presentation conforms to conventional standards, and data cards can contain familiar desktop features such as radio and option buttons, pop-up menus and action buttons making it the ideal database for the busy office,

home or school.
Impact 3 is available at the special price of £75 inc UK postage from the normal price of £96 (no VAT). Multi-user licences are available.

Contact:
The Fourth Dimension, 78 Brighton Road, Worthing, BN11 2EN, England.

Tel: +44 (0) 1903 523222
Fax: +44 (0) 1903 523679
Email: 4d@cjemicros.co.uk
Web: **www.cjemicros.co.uk/4d/**

USB galore

Following the plethora of USB product announced last month, this month sees two significant additions to the range of USB devices now available to RISC OS users.

Collaboration between Surftec and Stuart Tyrrell Developments, and another between STD and Explan sees the release of the *DigiFlash2* card and USB to Parallel Port Interface, both for the Simtec USB podule.

DigiFlash2 is a dual-format card reader enabling both CompactFlash type 1 and SmartMedia cards to be read and written. The readers are compatible with the FAT filing systems used by most digital cameras, MP3 players and other devices that use Compact Flash or SmartMedia cards. The reader may also be used on PC machines in order to allow file transfer.

Digiflash2 comes complete with RISC OS drivers and full instructions, and costs £59.95 inc VAT and delivery. The Simtec USB card is available for £89.00 inc VAT and delivery.

Unfortunately, the product only works with the Simtec USB stack, which leaves Castles' Iyonix users high and dry, although Castle have stated they are working on Mass storage USB drivers which would allow many devices such as digital cameras and card readers to work on the Iyonix PC.

Digiflash2 for the Simtec USB interface and the Simtec USB interface itself are available immediately from Surftec and Stuart Tyrrell Developments. Further details regarding Digiflash may be found at **www.digiflash.co.uk**
The USB parallel port interface plugs into the USB podule on the computer and offers a second parallel port. This allows the use of printers with Centronics parallel interfaces to be driven from a USB card, while using their standard RISC OS driver (a special USB driver is not required).

Although the Simtec USB card has supported printers with built-in USB ports since its release, this interface allows users who already have, for example, a parallel port-based inkjet printer; to add a parallel port based laser printer via the Simtec USB interface. Documents may be printed to either printer via the standard RISC OS drivers without the need for switch boxes or similar.

Many printers of the same or differing type may be used on a single machine, using multiple interfaces. Informal tests show data transfer over a USB interface to be somewhat faster than the internal standard parallel port. In addition this method offers a solution for those users who have struggled with compatibility issues when using both a printer and another peripheral device (Zip-drive, scanner or card-reader) from their existing parallel port.

The interface costs £13.95 + carriage + VAT = £19.95, and is available, along with Simtec's USB card from Stuart Tyrrell Developments and ExpLAN. Customers who purchase a printer from Explan may add a pack comprising Simtec USB card and Parallel Port Interface for only £99.00 inc carriage and VAT.

Contact:
Stuart Tyrrell Developments, PO Box 183, Oldham, OL2 8FB

Email: **info@stdevel.co.uk**
Tel: 0845 458 8803
Fax: 0870 164 1604

ExpLAN Computers Ltd., P.O. Box 32, Tavistock, Devon, PL19 8YU

Tel: 01822 613868
Fax: 01822 610868
Email: **sales@explan.co.uk**
Web: **www.explan.co.uk**

I am a camera

Photodesk Ltd have also released details of their *CameraDesk* USB software to allow images to be transferred from a range of USB cameras.
It currently supports the entire range of USB Canon cameras and the Simtec USB card. The utility is fully compatible with *Photoshow* and *Photodesk* software and shows the entire contents of the camera as a filer window or as a clipboard of thumbnails if used in conjunction with *Photoshow*. *CameraDesk* will be offered at £49.00 or as a bundle with a Simtec card and *Photoshow* for £125.00. Canon cameras are also available from *Photodesk* Ltd

Photodesk have also announced the availability of the 32-bit version of Photodesk, thanks to much work by Dave Ruck from the ARM Club. Upgrades are available for £40.

Contact:
Photodesk Ltd., 1
The Courtyard,
Southwell Business Park,
Portland, Dorset DT5 2JS

Tel: +44(0)1305 822753
Fax: +44(0)1305 860483

Stuck with your old backdrop?

PinWay is a new pinboard type application for RISC OS 3.10 to 5. Its main features are:

- Create and display up to 8 pinboards.
- PinWay pinboards can be auto-saved when the computer is shutdown, the program is quit or the user manually clicks 'Save'.
- As well as normal Filer type objects such as Applications, Files and Directories which can be dragged to the *PinWay* pinboard, Command-type objects which execute RISC OS commands can also be created on the pinboard.
- Files from most other applications can be saved direct to the *PinWay* pinboard. Just drag a 'save' icon from another application to a blank part of the *PinWay* pinboard.

If you drop the 'save' icon from most other applications on to a directory icon that has previously been placed on the *PinWay* pinboard, it will be saved to that directory and not the pinboard.

PinWay can be downloaded from **www.bapfish.org.uk** along with a selection of other RISC OS software.

Graphic design in the Real World

Over the past few months I have been giving you ideas and pointers about how to kick-start your own creative processes. One common method that graphic designers use to spark ideas is to look at what other designers have done. That's why many keep scrapbooks or files of "good ideas."

I'm not talking about stealing, but rather exploring someone else's solution and assessing whether a similar approach might suit your job in hand. Almost always your finished project is very different; looking at other work simply serves as a catalyst, something to set you off on yout own path.

With this in mind I thought it would be interesting to look at some design work I've done, real jobs which eventually went into print, and show you how I arrived at the end result. All projects start with a brief. That is, a description of what the job is, and that's a starting point to creativity. It's often as uncomplicated as, for example, "Design a logo for a plumbing company," but the brief contains the kernel of the solution. You can start by talking it out in your head: what simple image could represent a plumbing company? That will lead you to your first solution, which may well be rejected, but getting a start is very important.

One job I had recently was designing a logo for The British BMG Federation, "BMG" standing for banjo, mandolin and guitar. My first thoughts were how to represent the three instruments in a simple graphic way. What common attributes do the various instruments have? I reasoned they were all stringed instruments, and all had tuning pegs, which gave me the first visual hook. I sketched out some tuning pegs in a loose manner.

Trouble was, it wasn't clear what they were (lollipops?) and I couldn't be specific about the number of pegs, since banjos have four pegs, guitars six, and mandolins eight. Still, it was a start, and led me to my next thought. The strings of each instrument are wound onto the peg,



and I though if I used that as part of the logo it would include all three instruments.



I felt I was getting closer, but it still wasn't right. To many it would still be unclear, it looked a bit like a capstan with a ship's hawser attached. Back to the drawing board.

I decided to look at the actual instruments, and wondered how I could represent them all but in a simplified way. One problem was that they're different sizes and put together side by side the trio would look lopsided. But what if they were lying on their side? This turns the disadvantage of their varying sizes into an advantage, because if they were lying one in front of the other, you would be able to see parts of all three. Exploring this idea, I arrived at an arrangement of silhouettes.



I knew I was onto the winning idea, but I thought it could be better. I decided against enclosing it within a coloured box, but using the juxtaposition of the main colour and the white background to delineate the strong shapes of the instruments' profiles. To my mind, that was it. I believed I'd successfully conveyed the main focus of the organisation within a simple graphic image and fortunately, as this is not always the case, my clients agreed.



Another client was Castle Music, who asked for a new logo. This was easier, because at least there was a single, instant image which comes to mind: a castle! I decided that the quickest route into the problem was the most obvious, and started exploring graphic images of castles. First I included their office, an actual castle, into the design, only to be told that they were moving soon, so they'd rather not use that.

So I started toying with images of turrets. The first one, I decided, didn't hit the mark. Sticking with the turrets idea, I drew roughly a row of turrets, incorporating the name of the company.





It still wasn't there, but looking at this idea led me to a slightly different way of thinking; what if we could use the image of a chess piece, a castle? Again I used Draw to sketch a simple representation of a chessboard castle, and I felt this was the one. I reminded me of illustrations from book jackets of the 1950s, so I created lettering to emphasise that connection, and at last the logo looked finished.



These two examples should show you how ideas are sparked off ideas, and by exploring one ideas path, however lame, another, better idea can result.

Nigel Gatherer
graphics@acornuser.com

Wakey WAAAAKEY!

The 2003 Wakefield RISC OS show took place on Saturday 10th May. The show had been scaled back to a one day event for the first time for quite a few years, but retained the same venue.

MicroDigital, or at least, MicroDigital and their partners, managed to dominate the topics of conversation at the show. The seemingly endless waiting for Omega systems to be delivered to actual customers meant the show was guaranteed to be yet another "high noon" in that arena, and the announcement by MicroDigital of a PC laptop running Virtual Acorn and RISC OS 4 signalled the end of the constant squabbling over the licensing status of Virtual Acorn.

MicroDigital's Alpha laptop features a 2GHz Celeron processor. Whilst this is hardly leading the pack in CPU power even for a laptop, it should still produce very usable performance, and indeed was demonstrated running 1024x768 screen resolution in 32,000 colours on its 13.3 inch TFT screen.

MicroDigital boldly describe the Celeron as producing emulated RISC OS performance "equivalent to a 300MHz StrongARM computer". However, examination of various benchmarks from Virtual Acorn on various Celeron laptops suggested that, as always, the actual performance will vary extensively depending on what you're doing. For example, hard disk access under Virtual Acorn is vastly improved over the original Risc PC, but the emulator compares very poorly indeed for processor intensive tasks that don't require much access to main memory; more like an ARM710 Risc PC than a StrongARM one.

There have been suggestions that the Alpha package includes enhancements where the RISC OS environment takes advantage of specific aspects of the PC laptop's hardware, thus outperforming existing Virtual Acorn installations on similar hardware. However, no specific information was available about these enhancements, and the laptop hardware does seem just the same today's common PC laptops.

Indeed, the hardware emulated is an ARM710 Risc PC rather than a StrongARM one. This does have advantages in itself, however, because there is a large quantity of RISC OS software that will work on an ARM7 (even an emulated one!), but not on a StrongARM. Emulating a StrongARM instead might have produced some speed increases, but a far less capable software portfolio.



One thing made very clear was that there were no plans for this remarkable "RISC OS 4 plus Virtual Acorn" combination to be made available for installation as a software product for those who already have their own PC laptops. The licensing



agreement reached between Virtual Acorn, MicroDigital, RISCOS Ltd and Pace requires MicroDigital to pay RISCOS Ltd for each computer sold, and also for the RISC OS 4 Virtual Acorn combination to be licensed and tied ("copy protected"?) to run on the specific



laptop sold to each individual customer. This is achieved via code specific to the hardware.

As might be expected, the announcement prompted a withering storm of different viewpoints. (This was probably further encouraged by the sight of Alpha laptops on a wide variety of stands, including Virtual Acorn, APDL, MicroDigital themselves, and even RISCOS Ltd). Some were quick to dismiss a PC laptop using emulation as a second best solution, laughable to those used to real RISC hardware directly available to the user; but others saw the availability of RISC OS 4 on a laptop as being a major step forward.

Many other users have already bought a PC laptop on which to run Virtual Acorn, and are unlikely to buy a second one just to get an operating system upgrade. (MicroDigital do claim to be aiming mainly at expanding RISC OS usage outside the existing market). Even so, the Alpha definitely looked like flavour of the month for anyone keen to run RISC OS on a laptop, particularly given that RiscStation were not at the show, and that their PR guru was earlier said to be "leaving RISC OS" following revelations about the actual status of the RiscStation portable project.

As for the long-delayed Omega, it seemed that a breakthrough had finally been reached, even if ordinary customers could not take away their computers on the day of the show. (While MicroDigital asked for substantial deposits for anyone ordering an Omega as early as 2000, it wasn't until a few weeks before this show that they had begun invoicing deposit holders for the full amount).

RISCOS Ltd had received an Omega of their very own on which to test RISC OS 4 and RISC OS Select, and MicroDigital were prepared to license RISC OS 4 for the Omega by paying RISCOS Ltd for each machine sold (as was the case with the MicroDigital Mico, the RiscStation desktop, and Castle's old RISC OS 4 computers), so the rather nebulous "contractual issue" cited by MicroDigital had apparently been resolved.

Despite loud denials from the rumour boards believing that the Omega "next week" promises would continue indefinitely, your correspondent confirmed with his own eyes that exactly two Omega systems did indeed leave the show, as the prizes (one visitor and one exhibitor) for the show prize draw. The exhibitor

prize went to The ARM Club, and the visitor prize went to Peter Bell. Alongside that good news, there was also bad news on the Omega front. Apparently the promised 100Mbit network card was not yet ready (unlike the Iyonix, which has much faster 1000Mbit networking built in, the Omega requires an additional PCI card for ethernet networking). The floppy disk drive didn't work either, transferring software is slightly more trouble when one has neither a floppy drive nor ethernet.

There were also worries about the stability of the demonstrated ("production") machines in high resolution screen modes, and about the extent to which 2D graphics acceleration (essential on any modern computer system to avoid jerky window movements in high resolution screen modes) is actually implemented. Finally, MicroDigital admitted that USB was not yet working.

In the few weeks before the show, the sceptics, like a small flock of very hungry goats, had been hounding MicroDigital about issues like these. Their main concern was that some see the Omega as "more expandable" than the Iyonix, but the expansion options may still not be available even if the computer is; they thus tend to see the Omega as a much-uprated StrongARM Risc PC rather than a true competitor to the Iyonix, and cite rumours of timing problems with XScale on Omega as an indication that things may stay that way.

David Atkins of MicroDigital had a robust response to these criticisms, saying that they did in fact have an XScale-based Omega working in MicroDigital's laboratories, but there were a few minor problems with it, and they weren't demonstrating it at Wakefield because no-one understands what MicroDigital show to them at RISC OS events. Likewise, the network card, SCSI card and other add-ons were said to be very close to completion, but MicroDigital had chosen not to demonstrate them.

MicroDigital's publicity effort continued to "think differently". The Alpha's launch was accompanied by a striking colour A2 leaflet whose innards revealed a bigger than life size photograph of their portable showing RISC OS with the visible date only nine days before the show.

Even more striking, more than half of MicroDigital's stand was occupied by three high performance motorbikes in racing colours, relevant because of David Atkins' new biking hobby, and adjacent MicroDigital dealer Paddy Reid's illustrious past in racing (he won the Manx TT in the Queen's Silver Jubilee year). The allocation of space seemed rather bizarre to some, but it did



give a quite surprising and pleasing air of glamour to see pronouncements about RISC OS performance given against a foreground of "serious hardware" of a totally different type. I've attended more MicroDigital events than anyone who doesn't work for MicroDigital, and I must say no-one can doubt that David Atkins has a sense of style.



Meanwhile, over in the blue corner, Castle had their usual large stand populated by Iyonix computers, USB printers and USB scanners. Castle had deluged us all with announcements in the days and weeks preceding the show, it is now very hard to suggest that there is anything missing from the Iyonix. The



addition of greatest interest is UDMA, giving a huge speed increase for disk access times.

Another area where Castle were claiming a first for a next generation RISC OS computer was SCSI, with the existing Acorn podule SCSI card demonstrated fully working on their stand. Jack Lillingston said that this would soon be joined by third party podule SCSI cards (including Castle's own), as well as third party PCI SCSI cards, the latter might take "a bit longer".

Castle could rightly gloat (but didn't!) that floppy disk drives, networking and fully functional 2D acceleration had been working on the Iyonix since late 2002, while their main competitor still seems to be struggling with these nearly halfway through 2003.

Iyonix owners had been left out of the numerous announcements made at the show by Stuart Tyrrell Developments about drivers for various mass storage USB devices, these were only for owners of Simtec USB cards in older computers. (Surftec, also involved in USB devices for RISC OS, decided not to exhibit at the show; Simtec gave a theatre presentation showing exactly what their cards could do, but didn't have a stand).

Undaunted, Castle were not only demonstrating the printing, scanning, keyboard, mouse and hub devices already supported by the Iyonix, but also promising their own USB mass storage device driver for imminent release. This would give access not only via USB card readers for CompactFlash, SmartMedia, MMC and MemoryStick, but also all sorts of other devices, including digital cameras directly.

Castle had also been participating in the move forwards from previous squabbles about licensing conditions. Although no details could be confirmed at the show, an arrangement to remove RISCOS Ltd's concerns about the version of RISC OS on the Iyonix was said to be right around the corner.

Castle themselves were keen to stress their positive approach, mentioning their contribution of Popup !Printers for RISCOS Ltd to make available for free download by their customers. Castle's Jack Lillingston said he hoped that this exchange of technologies would become a two-way thing, when prompted, he said he did hope that Castle and RISCOS Ltd could work together to make this include some Select features on Iyonix.

However, Castle have always hinted that their RISC OS 5 is ahead of Select in some areas, and perhaps see it as impractical to merge these two radically different operating systems with totally different approaches to common "under the bonnet" problems. So the form taken by any possible co-operation remains very unclear.

Not too far away from the Castle stand was the Aemulor stand, with their Iyonix showing off how much 26-bit software can now be run under emulation, and how fast! While I do still know Iyonix owners who have one or two slightly more unusual applications they really need that aren't yet "Aemulor OK", the list of popular applications that still won't run now seemed to be pretty much non-existent.

Neil Spellings and programmer Adrian Lees were also testing software that show visitors wanted to make Iyonix compatible; and even looking at how to fix software on the spot! One beneficiary who wasn't a visitor, but was lucky enough to have his stand right next door, was Robin Edwards of Serious Statistical Software.

Testing revealed that 1st, 1st Jr, and 1stL from SSS will indeed run using Aemulor, but with some key facilities failing; the Aemulor team thought these problems would be pretty easy to fix, and took away the software to work on it. Robin's statistics software goes far beyond my needs, but new features at the show provided improved facilities relating to confidence intervals of ratios of proportions. (Or so I was told!)

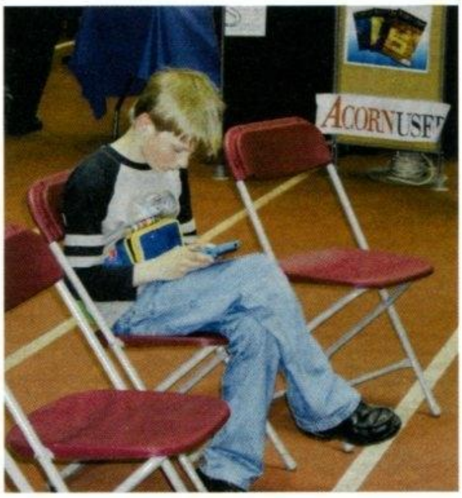
The Aemulor stand also doubled as a "Spellings Computer Services" stand, and it was good to see that effort had been put into making the stand a good advert for their spam email filtering service. Buying a dozen large tins of a fine meat product and arranging them in a 2D pyramid may not be the most extravagant marketing approach (especially when compared with motorbikes), but it certainly caught the eye.

By contrast, some exhibitors had stands that were much reduced on previous years, and also seemed to put less into presentation. Particular examples were Cerilica, who have recently cut down on the size of their operation, and Photodesk Ltd. From what I saw, both seemed to have a single computer, a single exhibitor, and very little else.

Admittedly, Cerilica are reducing the size of their operation, and Chris Hornby had announced on his Web site that he would be unable to be at the show due to a commitment made far in advance;

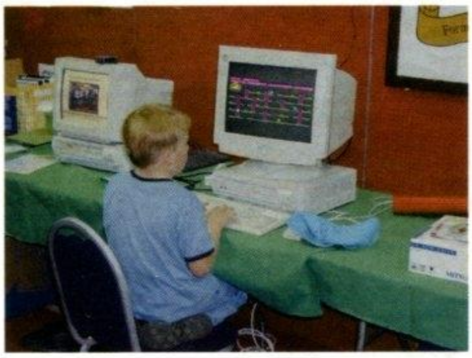


but even so, I expected rather more from companies who have had very impressive stands (whether by



technology and design, or by a profusion of posters, literature and demonstrations) in the past.

It was good news, though, that both of these companies were releasing products at the show, with Cerilica



formally unveiling Vantage 1.10 for the first time, and Photodesk selling both the essential Iyonix-compatible version of their bitmap graphics package (Photodesk 3.05), but also an Iyonix-compatible and enhanced version of the presentation package OHP2 (OHP 2.5).

Photodesk Ltd were also selling CameraDesk, which allows images from specific digital cameras to be downloaded to a RISC OS computer via USB. The version at the show was only compatible with the Simtec USB card, but versions for the Castle USB card and the Iyonix were said to be under preparation.

With all this going on, we should certainly hope for a more impressive display from Photodesk Ltd at the next show. Their competitors in the market for RISC OS presentation software were certainly snapping at their heels, with the Really Good Software Company releasing Iyonix-ready versions of NoticeBoard Pro and other products on their own stand on the far side of the hall.

The graphics package receiving far more attention than any other piece of software at the show was ArtWorks 2. Martin Wuerthner's small stand was besieged from fairly early on in the show, but it wasn't until about lunchtime that I noticed there was a formal queue, two wide and ten or twelve deep, waiting their turn to speak to him.

Three or four hours later, I looked again; the queue was identical in size and shape, but was now made up of different people. The message was quite clear; we may all have viewed ArtWorks as "dead software" two or three years ago, but Martin's steady pace of development, and the huge performance improvements seen with Artworks 2 on Iyonix, mean that a huge number of ordinary RISC OS users still see it as the graphics software in which they should invest. Needless to say, I didn't manage to speak to Martin at the show, but I had little doubt that the sales made had more than covered the stand cost and the air fare from Europe.

One exhibitor who was quite happy to admit that the takings had dwarfed the expenses was Jonathan Duddington, accompanied by his wife (in charge of finances and recording who had bought what). Pluto 3 is the Iyonix-compatible version of the endlessly popular news/mailreader Pluto. However, much like all other Pluto releases, it also includes major improvements requested by users, and not related to compatibility

with specific systems. Little wonder that Jonathan was selling many dozens of Pluto upgrades!

The competing software was easily found on R-Comp's stand. Once again R-Comp had an extensive stand with an extensive array of RISC OS computers, including an Iyonix and a development Omega side by side! There were Iyonix-compatible versions of DialUp, NetFetch, Quake, Messenger Pro, Webster XL, Grapevine and at least a couple of other applications.

The games arcade seemed reduced to a single computer, leaving some of the youngest visitors to the show either loyally playing their ARM-powered handhelds in the new-fangled rest area (which got more popular as the day wore on!), or in one case playing Chuckie Egg at the WROCC's stand. The latter also featured a working Domesday system, very interesting as a piece of history even though both it and its content had aged a lot in two decades.

I've mentioned RISCOS Ltd earlier in this report, but it is worth mentioning briefly that their stand seemed far more popular than at the last show on which I reported. RISC OS 4.36 (also known as RISC OS Select 3) had struck a chord with just about everyone, and a stream of visitors wanted to know more. It was good to see the steady progress on Select finally paying off, 4.36 was already in use by a range of early beta testers by the time of the show, and a CD release was promised to follow within a few weeks. The stand featured some RISC OS systems familiar from earlier shows, but also an Omega running RISC OS Select.

Exhibiting for the first time at the Wakefield Show was Peter Naulls of the UNIX Porting Project (also well known for his involvement in the Drobe RISC OS Web site and various other projects), demonstrating some of the many UNIX applications now available on RISC OS, and selling a budget CD to help get people involved. Sharing the stand was CocoGnut, a relatively cheap RISC OS application for accessing shared files via the peer-to-peer Gnutella network. Both sides of the stand were positive signs that the RISC OS market is not isolated from what is being developed in the outside world, but can benefit from it.

Even taking into account the fact that the show had shrunk from two days to one, the enthusiasm for it seemed overwhelming. Those arriving exactly on



time for the opening faced a twenty minute wait just to get into the exhibition hall due to the long queue (perhaps more than two volunteers manning the front



desk would have been a good idea, since advance tickets weren't available).

Almost every single stand seemed to be



busy for the whole duration of the show (and there were a great many stands I haven't even mentioned). Indeed, I only managed to make my own purchases by



the age old technique of waiting until the "show is closing in five minutes" announcement was made, and then descending upon the relevant stands in a great hurry.

There had indeed been some controversy over the decision to hold a one day show rather than a two day one, but a narrow majority of exhibitors who expressed their opinion well in advance preferred the shorter event in order to save money on hotel bills and other expenses; and the Sunday at the previous year's show had been especially quiet for almost the whole afternoon. On balance, a one and a half day show might have been the best option, given the huge popularity of the one day show, but such a thing would probably not be practical!

The success of the show was clear from the number of visitors turning up, the hefty sales made by almost all exhibitors, and the number of new, albeit controversial, items on sale or under preparation. It is very noticeable that RISC OS internet newsgroups and web forums no longer seem to discuss RISC OS versus Windows, or car analogies, or even the existence or otherwise of various deities. Instead, the entire market has taken instant and deeply entrenched positions on Iyonix versus Omega, emulation versus real ARM hardware, RISC OS Select versus RISC OS 5, Castle USB versus Simtec USB, and so on.

Just watching the adherents of each of these viewpoints shout down their opponents with angry determination is proof enough that new enthusiasm has been put into the market by the entry of so many new projects. Even though many see competition of this sort as being a waste of what could be achieved if everyone worked together, there is as yet no proof that increased competition, however bitter, may not do some good even to such a small market. (So long as it goes hand in hand with some co-operation as well, as we've seen).

With these slightly contradictory thoughts in mind, I left Wakefield 2003 feeling more positive than when I had left Wakefield 2002. Now it's up to the exhibitors and organisers to put negative thoughts behind them, and make Wakefield 2004 an even bigger success, it is very clear that the RISC OS community still has the enthusiasm for it!

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Making that call

Call Centres, don't you love them? Well now the RISC OS community has joined the fray. We now have a call centre system that is RISC OS powered. But don't panic, this one does have a few differences and it won't be ringing you in the dead of night asking you to buy the latest gizmo or insurance policy. The Virtual Call Centre is different.

Here at City Audio Services, and before, I've been working in audio for years, and in that time have used everything from the BBC Micro onwards. As soon as possible, CAS went digital for its editing, indeed several series for BBC World Service, plus many other items, have been mastered on Risc PCs. I have also done a fair amount of voice work. And a fair chunk of that has been for the visually impaired. One of the things I have read onto tape (yes all of it, word for word) was the Disability Discrimination Act, the DDA.

The fundamental concept of the DDA is that no-one may unreasonably discriminate against the disabled even unintentionally. So, for example, if a bank provides its mortgage terms and conditions on a paper document, it would be discriminating if it failed to give a visually impaired customer equal access to the information. How that is done is not prescribed and a reasonable response might be anything from making a braille or tape copy of a document to having staff read it word for word to the client. But potentially it means vast quantities of printed information should be easily accessible to people who simply cannot read printed text.

So the idea of the Virtual Call Centre was born, the idea being to use computers to provide a permanently on and cost-effective way to access vast quantities of audio information using the most common tool available to the visually impaired, the telephone. Being RISC OS-oriented, the attractions of the system were for me beyond question: it is robust, reliable and I could write code for it without an overly massive learning curve. I also already had several machines and a stock of useful bits and pieces like audio cards.

Since then the concept has developed to the point where it is now functioning out in the big wide world. We recently went public with the launch on BBC Radio 4's 'In Touch' programme of a site offering audio books on CD, its prime target being those who cannot see sufficiently to read print.

In fact the hardware is all sitting here, as I write, humming away next to me. And the little LCD panel in front of me tells me the last five calls came from London, Dundee, Motherwell, a mobile which could be anywhere and a caller who withholds the number. Those callers rang in to listen to brief extracts of audio books on CD, and to place orders as and when they wish.

The man behind 'Best Audio Books', Stefan Novak, is himself visually impaired and has always operated his business through mail order. When, through mutual contacts, he heard about what I was developing he asked if it could help him. What he thinks of it, I leave to him to say (see panel), but from my perspective it was not only the kind of application I wanted to support, but a great opportunity to work with a real client to develop the system into a fully working application.

So what is it exactly? Yes it's a call centre, but it is a virtual one in the sense that it has no real people, just recorded voices. It isn't a tedious pre-selection system to route the caller to the right operative. That's not the idea, the idea is that the caller can be routed to any one of as many audio files as you want to load onto the system. In fact with current hard drives, the system could handle half a million hours of audio. I'm not saying that's sensible, but it could be done, and a caller could access any of it.

The Virtual Call Centre (VCC) is designed to offer a more complete and less expensive way to make audio versions of text available than sending cassettes or CDs by post. But that is not its only application as the book site illustrates. The cost of DDA compliance for all services, commercial and public, is potentially significant. VCC offers a less expensive but more extensive way to meet obligations under the DDA. For the caller it offers a way to access information at any time, ideally via an 0800 number, without anything more sophisticated to hand than a normal tone-dial phone.

In practice VCC is a combination of hardware and software. The front end is a sort of voice-only modem: it uses a commercially available telephone front end known as a DAA (not to be confused with the DDA, the Goverment Act) to connect to the telephone circuitry. Crucially this approach sidesteps issues of CE compliance as the device is already certified for connection to telephone systems. Then comes some bespoke hardware to separate and manage the audio signals and to interface the dial-tone system and hook control to the computer's parallel port.

The lines themselves are brought in via ISDN modems for two main reasons. First ISDN offers Multiple Subscriber Numbering (MSN), which means the same actual lines can be dialled using up to nine different numbers. This might sound odd, but it means the system can tell which MSN line is being used, and respond accordingly. For example we publish one number for the book club, but Stefan has another number to access the order records. Second, the ISDN circuits provide detailed and relatively easily accessible call data, not just MSN but also Caller ID, call alerting signals and call clearance notification, very useful.

In terms of the VCC software, what began as a simple idea turned into a substantial package. Not all of it is as complete as I intend it to be in due course, but the core code is viable (I won't say it is finished, I do keep adding bits) and very stable. The hardware is now also proven, though again it is likely that each new build will see minor changes and improvements integrated into the board designs as they are developed.

The VCC system breaks down into several distinct operational elements. The first part is the call manager and router which reads incoming data from the ISDN device and routes the call appropriately. Each ISDN line provides two telephone lines but the manager can handle many ISDN modems and thus control many systems. This code also provides some logging and display functions for the system manager.

The next stage is the core engine, a system for managing multiple layers of choices, handling the input codes and ultimately playing back whatever is required. This is quite easy for the site manager to use as it is based upon simple structures and templates. But the

code behind it is quite complex as it not only has to interpret the site manager's settings, it also has to handle a great many possible scenarios such as callers not pressing keys when expected, needing to be reminded of options, perhaps being able to repeat menu lists and so on.

All of this functionality is automatic, the VCC has built-in system audio files which are used to guide the caller through the routine functions and to make suitable responses. The system also plays back the target information, which may be anything from a single audio file to a complex file list, and finally the system offers configurable exit options after the playback so the caller can be offered choices as to what to do next.

At first sight the requirement is to be able to play back large audio files. It does that: any format including MP3, with or without spool functions. But it does much more. It will play back any sequence of files enabling variable output to be constructed from sentence elements, either those built in or from those supplied for the site, there's a whole management methodology behind this too! It will play back files demanded by a variable. For example a VccClock application can be run in the background which updates the clock variable with the file list necessary to speak a clock. The VCC will use it whenever the variable is called.

A script file facility allows the system to work from text files. There are several versions of this, one is used to define the file lists for Best Audio Books. The function not only provides a powerful way to deliver large amounts of audio, it also means that external applications can alter the files and provide new lists in a dynamic way.

For example an application has been written to offer bus timetable information which may be altered via a live feed of real-time running data. Another variant is the questionnaire script tool. This allows the site designer to implement a question and answer routine. Indeed this has been used to good effect for taking orders for Best Audio Books.

And there is a further option which allows the VCC to be driven by external applications entirely. This means that without taking the risk of modifying core code a customer could have more complex systems implemented to their own requirements. To prove this function it was used to implement a remote access facility so that Stefan can dial in and listen to any orders. I'm pleased to say the system has proved very effective.

Inevitably I haven't described out substantial parts of the system and I won't list them all. But some I think are too important to omit:

The first of these is security. Any part of a site may optionally be protected by a security pin code. Thus Stefan's order line might be accessed by someone dialling the number by mistake but they would never get to the data held there: the odds would be, I think, something like 10 to the power 17 to one against. Nor can the system be hacked, it simply isn't accessible by any hacker-accessible route.

The second is language. Currently the whole system is in English: not just the content but also the extensive library of system audio files which are used to tell the caller what is happening and what is going on. Clearly it is just as easy to load the system with audio files in another language, but the system language would remain English. To allow for this, the site can be switched at any point to a different system audio library. So provided those audio files are installed, the whole site simply switches language as required.

I am pleased with the way the system has evolved and I am extremely pleased with the way it is performing in use: not just the way it handles the calls, but the relative ease with which sites can be modified and updated. The intention now is to begin offering the system to a bigger public.

Who would be the right customer for this application? Any business or other organisation that needs to provide what is currently visual text information as audio information because UK law says that they have to, they can't avoid the law even by pleading an unintentional breach. The VCC system provides a practical and cost effective way of complying with the law.

VCC is an application that probably won't reach the front pages of the computer press, but it is an essential application that a vast range of businesses across the UK (and beyond, similar legislation exists in the USA and other countries) must have. It could easily reach the front pages of the business press.

Here at CAS we can offer a complete hosting service: with experience of recording for many clients including the BBC, and of recording in most of the world's languages, plus of course we have the software. We would be happy to speak to anyone who has need of such a service. And we'd be especially pleased if the caller is a devotee of RISC OS and understands why we use it.

If you would like to experiment with the book site and see how it works for yourself, you can simply call 01634 841903. To speak to me, Julian Coleman, at CAS call 07714 125311.

Thanks to the many

In the course of this project I have had to ask the RISC OS community for help, and many people have given that help without any benefit. I'd just like to say how much I appreciate the assistance so freely given from RISC OS enthusiasts. I'd like to think this project will be able to help sustain the platform and its supporters.

Julian Coleman
cas@argonet.co.uk

Voice synthesis

I am frequently asked whether the system uses voice recognition and/or synthetic speech. It doesn't use either. Voice recognition is still too fallible and research suggests many users do not like it anyway. Text to speech is either too poor and synthetic sounding, or too expensive. Either way, and despite advances, it isn't a better answer. VCC uses dial tones for input and recorded speech for output.

Case in point

Audio Book Choice has been in operation since 1996 and we send to our customers a regular update of an audio tape listing many new and back-list audio book titles. Like myself, all of our customers are visually impaired hence the need for the information in an audio format. However, now that many visually impaired people (VIP's) have computers that talk we can also send information by e-mail or on computer disk.

The audio cassette has been the most popular way of receiving information but

the audio cassette is a recording medium rapidly coming to the end of its life. It became time to think of other alternatives to advertise audio books to our clients.

Recording every issue on audio tape and mailing out to our listeners is quite costly. Also the general length of our tapes was around 60 minutes which meant we were limited to how many books we could advertise. New listeners are hearing about us every week but they may miss titles that came out a month or so previously.

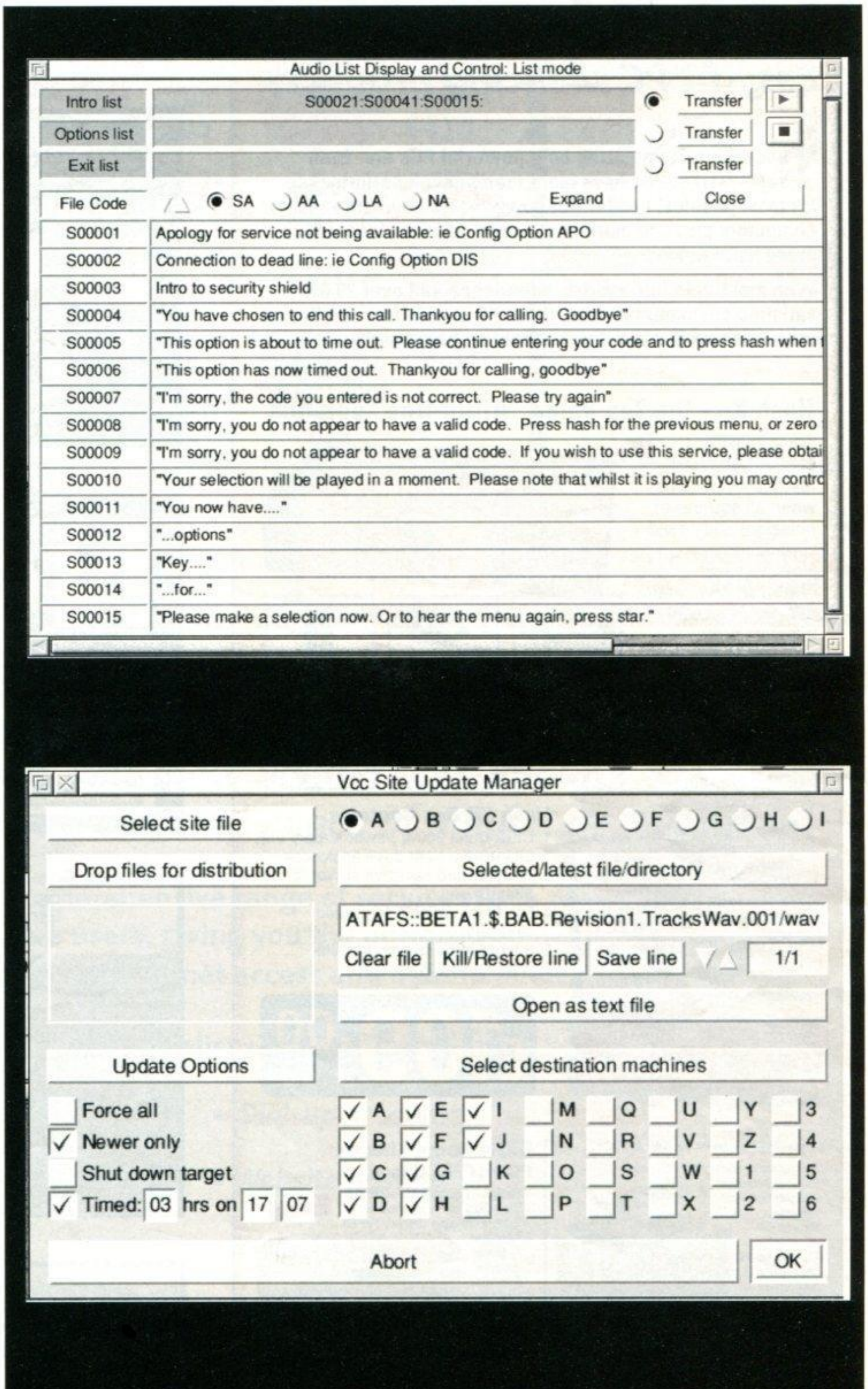
Although we could advertise our titles each month on standard compact disc this also would be quite costly, however, this was considered a possible option at some stage.

I then thought about the telephone and its uses and the fact that many people are happy using the phone whereas many of us are still not comfortable using computers and even more so going online. The phone can be used anywhere and calls can be quite cheap or perhaps make the use of free weekend or evening calls. While these ideas were forming I came into contact with Julian Coleman of City Audio Services and, developing the concept he was already working on, VCC became our system of choice.

It became possible that customers could just call one number, which is not a premium rate call, and not only hear about latest audio books but actually listen to an excerpt of around 2 minutes at the same time became a very attractive idea. Plus we were able to offer a book of the month together with eight genres for listeners to browse at their own leisure.

A sighted person can visit a book store in the high street and browse through the shelves and once they have selected titles that catch their interest they can flick through the book to get a feel for the written word. This in the main cannot be done with audio books.
Best Audio Books offers listeners the title, author, reader (the person who has recorded the book), duration, price and a brief synopsis followed by an excerpt which can be either listened to, or skipped to listen to the next title. Once listeners have chosen titles to buy they can go to the option to place their order and just wait for their books to arrive. All of the titles on the system which can be purchased are available on compact disc so give the best audio quality possible. This new way of listening to audio books has proven extremely popular and we will be adding new titles on a regular basis together with new ideas for the system in the future.

Stefan Novak
Manager, Audio Book Choice



AudioMgr: There is a system for managing and using audio files built in to VCC. This template helps build file strings for use wherever you want them.

Site Mgr: The site manager utilities help transfer your new site or changes to the wider network, this system will copy large numbers of files to selected destinations at a pre-set time.

Free Adverts

•Acorn items for sale:
[1] Single slice RiscÊPC. ARM610; 6MB RAM; 1MB VRAM; 420MB HD; Cumana CD-ROM; RISC OS 3.50. Original mouse, keyboard, manuals and boxes.
(2) Two slice Risc PC. StrongARM SA-110; 64MB RAM; 2MB VRAM; 2GB HD; 24-speed CD-ROM; RISC OS 3.70. Original Mouse, keyboard, manuals and boxes.
(3) Psion Series 3c PDA. 2MB RAM; Mains adaptor; Leather Case; PsiRisc Acorn link software. All original boxes and manuals. (4) Cumana SCSI2 Podule.
(5) CJE 5x86 PC second processor card for RiscPC. 133MHz, 512k cache. Comes with PCPro software.
(6) Computer Concepts LaserDirect4 laser printer plus podule. All software and original manuals.
(7) Epson GT9000 A4 flatbed SCSI scanner. Original boxes and manuals.
(8) Software (all boxed with manuals and bits): Artworks; Eureka v3; Ovation Pro; Impression 2; Fireworkz Pro; Mr Clippy; ImageFS 2; SparkFS; Keystroke; PCSound Professional; Win95FS; WMF IT; Clip IT; ImageMaster; ANT Internet Suite 2; Compression; ArcFax; Virtualise; Font Directory 2; Touch Type; PublishArt; PublishArt 2. Any reasonable offers for all items (or combination of items) above. P&P charged at cost or available to collect.
Contact Jon Aylwin 029 2041 0678 or jon@aylwin.org.uk

• Two Master 128s, 3 disc drives, 1 Cub Monitor, 2 mice, software, £50 buyer collects. East Kent Coast. Phone 01303 873364.

• Wanted: All Acorn A3000s, A3010s, A3020s, A4000s, A5000s, A4s, Risc PC 600 & 700s, StrongARM Risc PC's, Kinetic Risc PCs. Anything considered. Can travel. 07930 507815 or 07775 776217.

• Acorn A5000 including monitor etc plus additional software including Advance suite. Any sensible offer considered. Contact Robert on 0191 5191231 or at robertvardill@beeb.net

• Wanted: Irlam Instruments Videodesk editing system. Any other video editing card suitable for use with a Risc PC also considered. Please contact chris@acdale.demon.co.uk

• Eagle M2 multimedia card; replay video production, HQ video stills, digital stereo sound sampler, full MIDI IN/OUT/THRU facilities, RISCPC compatible. Offers around £160. Multimedia software; Midiworks, Prosound, Cineworks (includes AppleFS) and Genesis Professional £35 each plus postage or £120 for all three. Eagle M2 plus all four packages £250 plus postage. Enquires or offers 0151 547 3993 or email aokai@tiscali.co.uk

• A two foot stack of Acorn User magazines for sale, complete with cover discs, from Sept 1994 to end 2001. Also other Acorn magazines and discs. Best offer secures this 12kg pile. Tel. Coventry, 02476 319519

• Wanted: All Acorn A3000s, A3010s, A3020s, A4000s, A5000s, A4s, Risc PC 600 & 700s, StrongARM Risc PC's, Kinetic Risc PCs. Anything considered. Can travel. 07930 507815 or 07775 776217.

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• A two foot stack of Acorn User magazines for sale, complete with cover discs, from Sept 1994 to end 2001. Also other Acorn magazines and discs. Best offer secures this 12kg pile. Tel. Coventry, 02476 319519

• For Sale,586 PC CARD for Risc PC, by Aleph1,includes PC Pro 3,also Windows 95 or 98, cost over £300 pounds, will accept £90 or near offer, Radcliffe,Manchester, please phone 0161 280 3375 or email, j.jackh@ntlworld.com

• Kinetic RPC, 258MB, 60GB, 24x8x8 CDRW, 2 slot backplane, SCSI32 32/16 bit SCSI card, 2 keyboards, 2 Mice. Cost £1772. Sensible offers please. Manchester, tel: 0161 628 6546 after 7.00pm

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Although we try to publish every ad we receive, we can make no guarantees; publication is entirely dependent on space and time constraints.

Please fill in your name and telephone number below – these will not be published but enable us to contact you in case of any queries. Make sure you include your own town/county in your ad to help potential buyers with their purchasing decision.

Getting into Digital Video

The subject of capturing and editing video on RISC OS is one that is encompassed in a very simple summary: It's not easy. In fact it is almost impossible.

But almost impossible means slightly possible, and slightly possible means that there is something that can be done about it even if the route is tortuous and requires sacrificing to the dark side.

In the first of this two part article we are going to look at the hardware involved in getting proper digital video capture from a modern camcorder in the most RISC OS-friendly way.

We will look at the camera, in fact review one of the most popular camcorders currently on the market, and also look at another of those mini-PCs that is so small you could carry it around in a plastic bag, HKi Systems TX2.

So without further ado let us look at some hardware.

Canon MV650i

The MV650i is a very neat, very compact, camcorder with almost every square centimetre either a door into the inside or a control on the outside. And for a unit in the £600 price range it does very nicely indeed. One thing to watch out for is that with camcorder and digital camera prices they change so fast that most advertisers often don't put a price in their adverts, you really do have to give them a call.

The unit has a 2in LCD viewfinder which is sufficient for most purposes although perhaps a little bit on the small side. Hinged at the front it folds out as expected and then can be rotated to the angle you want including 180 degrees. In that position the image is actually mirrored, giving the impression that you are looking into a mirror as you view yourself. There is an option to turn the mirror effect off in which case what you see is effectively what the camera is seeing and recording.

Despite the modest size of the LCD display you get a lot of information including battery charge level, time remaining on the tape (or card memory), time code, record status and so on.

The unit is so compact that it will fit into when packing any reasonably sized pocket or bag, or for your holiday there's no worries about throwing out more than perhaps your toiletry bag. Not only that but the size also means that you really can tote it around in your hand without difficulty and, in tests, children as young as five have no trouble using it (beyond the ability to get the main object actually in view and keeping it there).

While a very solid unit it is not too heavy (see note on children above) though weight cuts both ways, a solid machine tends to be easier to keep steady while a lighter one may be all over the place. However if you want very solid images and own a tripod, there is the mount on the bottom that you would expect.

The majority of the controls for the MV650i are located around or under the LCD panel which allows you to hold the camera in your right hand and manipulate the controls with your left ... which is actually quite awkward if you are right-handed. The unit, like most of these types, are designed to be held in the right hand. I'm generally happy with that apart from this weird situation of being required to use my left for controlling the unit.

There are three groups of controls: Right/bottom looking at the left side, are the menu and menu control thumbwheel. Pressing the menu button brings up the top-level menu for the camera, the thumbwheel allows you to select and option you want and press to click for select. You can view the menu on the big LCD screen or in the viewfinder.

Above the LCD bay are the four video tape controls for when you are in replay mode. These also double up on other functions. Becoming available only when you open the LCD display are another five controls and also the backup battery bay. These controls are used for special effects, in-camera editing, timed recording and so on.

Under the LCD bay is the space for the memory card. The camera can take still pictures as well and these are stored on the card, along with the pre-stored images for mixing with video, you can do blue screen combinations of images. As a stills camera the system works well and you can transfer stills on to the video tape as well.

For power the back of the camera has the removable battery pack, and also the port for charging the battery or simply running the camera from mains power if you have that option. The viewfinder raises up to engage and disengage the battery pack. To charge the battery you do have to have it mounted on the camera which might be inconvenient but that's the price you pay for a good small camcorder.

On the right side of the camera, where your controlling hand is located there is a small group of main controls and also the DV tape slot.

These controls are the Camera (record mode)-Off-Playback control, this has a little latch to prevent accidental switching on and off. Next to this is the record button to start and pause movie recording. Above this is the control to switch between tape and card.

At the top is the single image photo button and slightly forward of that is the wide-angle/telephoto control. The zoom facilities are a 22X actual zoom along with a 440X digital zoom. These two are fully integrated and switch smoothly from one to the other, digital zoom is not really to be recommended in still image land but here it seems to work very well.

The tape bay opens neatly at the bottom, although you will almost certainly have to take it off a tripod if it is on one. At the front there is an accessory shoe on which you can mount a light or a bigger microphone which Canon dealers will be delighted to sell to you.

Apart from the lens (obviously) the front of the camera has the flash for the stills, the infra-red receiver and the stereo microphones. There is also yet another covered bay with three connectors in it. These are for an external microphone, headphones and the mini-USB socket. This socket is for transferring images from the memory card, of course the PC software has lots of extras for editing and such like but basically it is just a mass storage device.

The final and probably most important features are located at the front bottom under yet another door and these are the DV and S-Video in/out sockets. These are what you use to get the video through your system, you can record from the camera to a video recording device or to another DV device.

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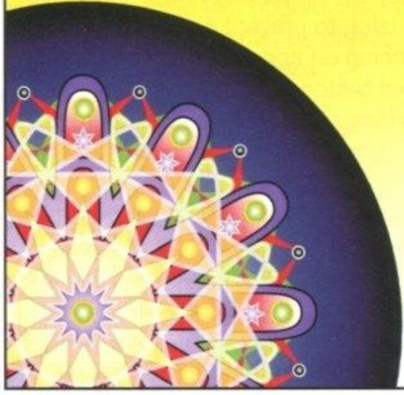
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Many applications including Impression, OvationPro, OHP and PhotoDesk can directly render ArtWorks files*. Alternatively, export in standard Draw format for use with all applications supporting the Draw format.

*without transparency; requires latest version of free ArtWorks Viewer utility

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These cameras do, in fact, have a huge ability to perform editing on the camera itself but it's not something I feel I would ever do. Sitting in front of a computer is the way to edit simply for the convenience if nothing else.

So how does it perform? Very well indeed our testers found it quite simple to use, the plethora of controls were all quite logical once you understood the logic of them and it was an enjoyable experience. The quality of recordings is enough to make it worthwhile if you are the sort of person who likes to make videos. And I find myself attracted to it.







HKi Systems TX2

A few months ago we looked at one of the HKi Systems mini-PCs, why did we look at a PC? Simply because nowadays to sensibly use new printers and other peripherals it is frankly easier to get a PC and network to your RISC OS machine. Using PCs as server devices certainly puts them in their place as well.

HKi can supply their PCs with anything from Windows 95 up to XP, but they will also install Linux if you prefer. The machine we have on test this time around is the TX2. This is a much chunkier unit than the previous machine and is not quiet, in fact it's quite noisy. But then again no noisier than a full size PC.

But this one will sit comfortably on your desk, or hanging in a bag from the table and it just will not get in the way.

It has a superb array of connectivity located all around the outside of the box with a DVD player in the base. There are four USB ports, network, firewire, audio, as well as the expected mouse, keyboard and video connectors.

As an adjunct to a RISC OS system it makes a perfect addition for use with R-Comp's connectivity software.

Geoff Graham

No software

The RISC OS position with digital video is bleak in the extreme, basically there is no software at all that can do the job of editing.

Uniqueway's Empire was a personal editing system based around the Acorn Replay format. Replay was (and is) a very effective format and, as usual with Acorn products, well ahead of its time. But as a proprietary format on a minority platform devised by someone who's gone on to other things, it hasn't received much attention in the world of digital video. And neither has Empire. We spoke to Paul Middleton about it a few months ago and whether there was any chance of Empire getting refurbished and he explained it was highly unlikely.

Origin Systems have the professional offline editing package, Optima, it is in use by professional organisations including the BBC. But its use is fading as other offline editors on more common and faster platforms take over. I spoke to Nic Blinston about Optima and DV. Again the possibilities were not good, Optima is also built around Replay, and involves the use of image digitising and so forth to get into that format.

Also Optima is an offline editor, this means that what it actually produces is a set of editing instructions which then are fed into an online editing system which creates the final cut. Optima is not designed to produce a final output itself.

But again there is, at present, no way of converting from DV to Replay. DV is a proprietary format and money is needed to buy the licence. A lot of money.

Don't despair however, there is at least one way of editing while sitting at your RISC OS computer and we will look to see what other options are available.

Get blogging

If you missed the last issue of the magazine you will have missed what blogging is all about so we will have a quick reprise:

A blog is a web page made up of usually short, frequently updated posts that are arranged chronologically; like a "what's new" page or a journal. The content and purpose of a blog varies greatly from links and commentary about other web sites, to news about a company, person or idea; to diaries, photos, poetry, mini-essays, project updates, even fiction.

Blog posts are like instant messages to the web.

Many blogs are personal, "what's on my mind" type musings. Others are collaborative efforts based on a specific topic or area of mutual interest. Some blogs are for play. Some are for work. Some are both.

You provide Blogger with a template of your page (or use one of several pre-designed ones) that indicates where you want your posts to appear. When you want to publish something, you simply enter it in a form on the Blogger site. When you're ready, you hit a "Publish" button that will automatically send your new page to your web server.

If you're more sophisticated, your template can even contain script, such as server-side includes, ASP, or Cold Fusion pages, and that script will still be processed after the Blogger content is inserted.

The basic Blogger service is completely free. There is also a subscription version of Blogger, called Blogger Pro.

So this month we thought, just to round up on our little look at the next big thing on the Web and some of the best Blogs on the Web. Although we have concentrated on Blogger there are other Blog systems around and about on the Web. Just take a browse around.

Chuck Olsen's Blogumentary

http://chuckolsen.blogspot.com/

Chuck is enthusiastic about movies and also running about Time Square asking people if they know what a Blog is.





What is the Matrix

http://matrixessays.blogspot.com/

Jumping on the band wagon? Certainly. Does the Matrix have good scientific background? Probably not but then again it's about philosophy and big guns, not science.

0SIL8

http://web.0sil8.com/episodes/pressnothing/

The latest episode of 0SIL8 is called Press Nothing to Continue. It's an innovative marriage between Blogger and Tellme, a telephone information service. What happens is that Blogger is forced to output a version of XML called VXML, from which a blog can be heard over the phone. There is no weblog to see, you have to call a phone number to hear it.

U2Log

http://www.u2log.com/

"I can't believe the news today. / Oh, I can't close my eyes and make it go away. / But that's ok." It's news about the biggest band in the world, U2. Surf on over and watch the days run away like horses over the hill. Bloggers are very often about your favourite things, (move over Big Brovaz).



Senior Citizen

http://seniorcitizen.blogspot.com/

From rants on Oxford students and Gnutella, to posts about a new telescope and an online cheese comparator. This site is also not really for the mild of heart or the young it pulls no punches and the language is ... natural. Still it can be a source of interesting links and even more "interesting" commentary.



The Daily Brad

http://www.bradlands.com/dailybrad/

Bradford Lee Graham says, "Matter was neither created nor destroyed in the creation of this website, although one hopes the universe was dented, just a bit." This is a very funny site, go there and enjoy it. After you've had your daily dilbert.



Living colours

http://vanderwoning.com/living/blog.html

Some say that you have to come face to face with death in order to truly appreciate life. Kaycee is currently receiving chemotherapy for leukemia, and living with cancer has given her a different perspective on the world that it is worth reading up on.

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Part 16: Falling at the last

All the major aspects of printing with S-Base were covered in the previous episode in this series on S-Base programming. This time around, which is very definitely the last time, we are going to look at one way of customising the zone display, and we will round up with an overview of what has been created here. What we will not be doing is looking at the printing and there is a very particular reason for that which I will talk about later.

But first things first: In the "medium" display we have all the actual real-world objects, like books, DVDs, videos and so on. But they are all mixed together and using the standard zone routines there is no way of identifying them.

A nasty way of sorting it out would be to add the "media" name in brackets at the end of the listing. We can do this, it's messy and it doesn't really help much. If there were a lot of entries in this list it would still be like wading through mud.

Instead we want to have a way of listing only the books or only the videos or only the DVDs. This is surprisingly easy to achieve.

On an interface level all we need to do is add three icons to the format of the

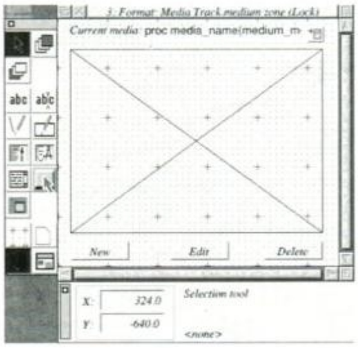


fig I

medium zone (Figure I). We have a prompt which tells us what the field is about and a field which contains a routine call to display the currently selected "media" which we are displaying and finally a menu pop-up which allows us to select and change the required "media".

On the programming level, within the "medium" procedure resource we have to create a specific variable which I have

```
def proc medium_init
  medium_curitem=-1
  dim s medium_items[MEDIUM_MAXITEMS]
  medium_media=-1
  return TRUE
enddef
```

fig II

called **medium_media**. This variable contains -1 if we want to display all media and, if we only want one type of media, it contains the ID of the media record required. Figure II shows this being set in the initialisation procedures of "medium".

The code is already in place that for a standard Zone list that if a button is clicked that is not "generic", control is passed to a routine in the zone's dedicated code specifying the button that has been clicked.

Figure V shows the code that calls up a menu when the "media menu" pop-up is clicked. But that menu is not one we've looked at before.

Previously we created a standard menu generator in "control" that produces a menu of all the entries in a zone plus an item at the top which asks you if you want to create a new entry.

This is a good solid piece of code and works well. It has one major drawback, it is not flexible. You get the entry list and the option to add, no more and no less. At this point we wanted something different. We did want the entry list but something else at the top.

Initially I was thinking that we did not want any additional items at the top but realised we needed an "All media" entry. The user can choose individual media or all of them.

At this point there is a standard action you can do and technically it's called "abstraction", which in one definition means a "taking an idea away from the concrete" or "stripping an idea down". The idea of this routine is to create a menu of entries and have a special entry at the top. The concrete application of it is to have that top entry as "Add new [whatever]".

What we do is "abstract" the core code and create a new routine to provide the functionality we are already using. We musn't break the existing code so our routine "control_menu_maker" remains outwardly the same but all the code is taken out of it and replaced by a call to a new routine which does all the work. You can see the old routine at the top of Figure III, with its new internal code.

The new routine has additional parameters which make it more versatile, we allow the calling routine to specify whether the top item is greyed out, and what text it should be. There is no default text, it must be specified,as it is in the old routine's calling code.

```
def proc control_menu_maker(zh,zn,zc)
  local zlabel=@trim(ctrl_zones[zn].label)
  local zs="(Add new "+proc toupperfirst(zlabel)+")"
  proc control_menu_maker_a(zh,zn,zc,FALSE,zs)
enddef

|---------------------------

def proc control_menu_maker_a(zh,zn,zc,grey,i)
  local mqh=ctrl_zones[zn].mqhandle
  local mh=ctrl_zones[zn].mhandle
  local zname=@trim(ctrl_zones[zn].name)
  local zlabel=@trim(ctrl_zones[zn].label)
  local qq=0

  menu dispose mh
  menu new mh,zname,zlabel
  ctrl_zones[zn].mhandle=mh

  delay on
  query clear mqh
  query run mqh

  if (@ext(mqh)=0) then menu insert mh,i
  ffor qq=0 to @ext(mqh)-1
    delay 100*qq/@ext(mqh)
    load zname,@bget(mqh,qq)
    if qq=0 then menu insert mh,i+"|"
    menu insert mh,@trim(@filefield(zname,"name"))
    next
  delay off

  if (grey) then menu set protect mh,0

  ctrl_cmenuzh = zh
  ctrl_cmenuzn = zn
  ctrl_cmenuzc = zc
  menu set mh
enddef
```

fig III

The final result, Figure III, is that the existing code is not broken but now we have a new routine (with proven code) to generate the entry list menu and the ability to change the top wording. In our case to "All media".

So, by this stage, we have the ability to bring up a menu of "media" names along with an option to select all of them.

However there is no menu select handler for any of the zones so we have to go up

Handler: Media Track:zone menu select

```
local zname=@trim(ctrl_zones[ctrl_cmenuzc].name)
@exec("proc "+zname+"_zonemenuselect(ctrl_cmenuzh,ctrl_cmenuzn)")
```

fig IV

the levels of code and go to the Zone handler set, add a menu select handler and put some code in it. Figure IV shows the code, it is exactly the same as the menu select handler for cards apart from the name of the zone routine that is called.

Figure V shows the zone menu select code which is similar to other menu select code, in this case it is used to set the value of **medium_media**. If the top item is clicked we set it to -1, otherwise we find the record number of the menu item clicked (this is part of our standard code and is available automatically) we load the record, get its ID and store that.

```
def proc medium_zoneclick(zh,e)
  local lh=@elementhandle(zh,"list")
  local sh=@selectedhandle(lh)

  case (e)
    when "media menu"
      local zn=proc control_find_zonename("media")
      proc control_menu_maker_a(zh,zn,medium_zonenum,FALSE,"All media")
    endcase
enddef

def proc medium_zonemenuselect(zh,zn)
  local zr=0,ms=@menuselect(0),zj=medium_media
  local mm=medium,ma=media

  case (zn)
    when media_zonenum
      case(ms)
        when 0
          medium_media=-1
        otherwise
          zr=proc control_getzone_mqentry(zn,ms)
          load media,zr
          medium_media=media.id
        endcase
      if (zj<>medium_media)
          card update zh,"media"
          proc medium_zonerefill
        endif
    endcase

  medium=mm
  media=ma
enddef
```

fig V

Once that is done we look to see if the value of **medium_media** has changed, if it hasn't we do nothing but if it has we refill the zone list.

Another little issue popped up at this point: *What if we were displaying one type of media and it got deleted?* Luckily we already have the code in place to

```
def proc medium_media_delete(zr)
  local ma=media
  local zh=proc control_getzone_handle(medium_zonenum)
  load media,zr
  if ((medium_media=media.id)||(medium_media=-1))
      medium_media=-1
      card update zh,"media"
      proc medium_zonerefill
    endif
  media=ma
enddef
```

fig VI

make fixing this potential inconsistency very easy. "Medium" is a client of "media", which means that messages about what's happening in "media" get passed to "medium" including deletions.

```
def proc medium_zonefill(zh,qh)
  local mt=medium
  local qx,lh=@elementhandle(zh,"list")
  selector delete lh,0,@entrycount(lh)

  query clear qh
  query run qh

  qx=0
  while (qx<@entrycount(qh))
    load medium,@bget(qh,qx)
    if (medium_media=-1)
        selector insert lh,@trim(medium.name)
      else
        if (medium.media_id=medium_media)
            selector insert lh,@trim(medium.name)
          else
            query delete qh,qx,1
            qx-=1
          endif
      endif
    qx+=1
    endwhile
  card update zh,"list"

  medium=mt
enddef
```

fig VII

All we have to do is check whether a media deletion affects the current display and if it does then re-draw the display. Also, if the media being deleted is the currently selected one reset **medium_media** to be -1 and redraw. (Figure VI)

Finally we come to the actual redraw step, the bit that re-fills the zone list depending on the current setting of **medium_media**. This is shown in Figure VII, the key points to note are that the ffor..next loop has been dispensed with and replaced by a while loop. This is because we have to play dirty with the query containing the list of records to be displayed.

We run the query as normal and get a full list of all the records that can be displayed, using the while loop to cycle through each query entry and using **qx** to index the query we take each record in turn and load it up.

If **medium_media** is -1 it means that we are displaying everything so we just add the record name to the selector. However if **medium_media** is an ID we check it against the media_id of the record. If it is the same we add the record name to the selector as expected.

If it isn't we have to delete the record

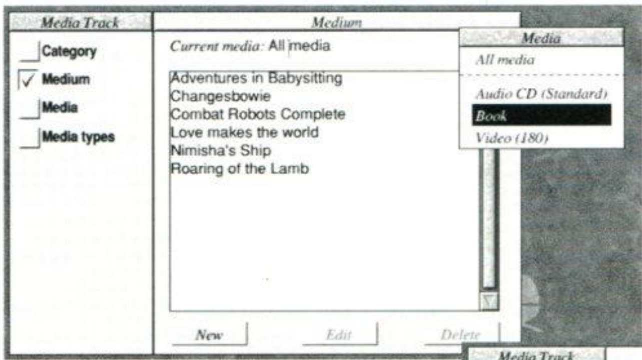


fig VIII

from the query and also (very important) decrement the loop variable as well because there is one less entry in the query. This is why we can't use a ffor..next loop.

This works very well indeed and gives exactly the result we want. Figures VIII and IX show the process in action.

Winding up

What we have is the implementation of a very thorough skeleton of code for building good database systems in S-Base for RISC OS. If you have an understanding of BASIC you won't find S-Base too hard though it can take a little while to get used to it.

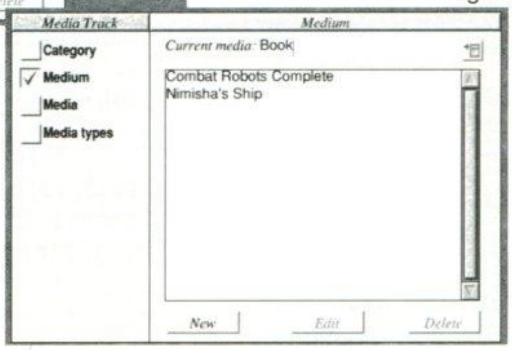
There is much in S-Base that I haven't touched on however with these basics you should be able to create any applciation you want. These are only ideas of course and there is nothing to stop you from programming in your own way. It is a database programming language and it doesn't hold your hand, this is raw programming. But it does protect you from the intricacies of Wimp programming.

As I mentioned towards the beginning of this article I have not implemented the printing system, I shall now explain why: This application is a dud, it actually doesn't do what I wanted it to do. And I only really discovered that when I came to put in real data. It doesn't need a complete re-write but it needs more work and a bit of fiddling. When I'll get the chance to do that I'm not really sure.

In addition to this there are practical problems which need to be addressed: Where new record cards have been created as a result of menus they have been created as "dynamic" objects so if we try to hang another menu off them they disappear. This makes the nesting creation of records impossible and the application becomes a pain to use instead of being easy. The cards need to be created as static (but scared) which will make them behave properly.

But then, as they say in all the best text books, I will leave that as an exercise for the reader. Have fun.

fig IX



Steve Turnbull
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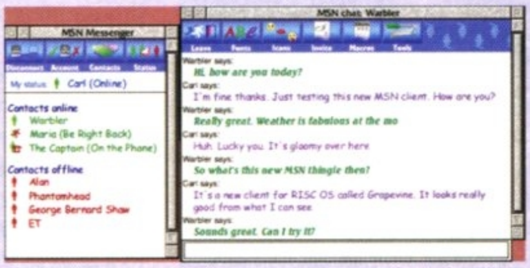
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HTMLEdit 5 Studio (Whole Suite) . . . £115
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WebSpell (HTML-aware spelling checker) **£15**

Also Available:
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Network-in-a-Box — New Product!

Network-in-a-Box gives you all you need to network up RISC OS and Windows computers, and share printers/internet. Containing 2 network cards, cables, the Internet/Print sharing box, software and ***5 printed, step-by-step manuals*** covering both RISC OS and Windows. **£289**

ADSL-in-a-Box — New Product!

Similar to above, but for ADSL and without the shared printing. Everything you need to network a RISC PC/A7000 and Windows PC for ADSL **£265**

UniPrint NEW - out now!

"Universal" Network Printer Driver . . . £35
The holy grail for RISC OS printing is to be able to print to any printer, no matter what type, how cheap or how it is connected. Now you can. Well, over a network anyway!

The software allows you to print to any printer connected (and working) to a WindowsPC on your network. That £50 USB inkjet? No problem. An expensive Photo Printer? Again, no problem. Make that ageing PC/laptop work for your RiscPC, and forget your printing woes!

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Have you got your E111

The European Computer Driving Licence (ECDL) is the European-wide qualification which enables people to demonstrate their competence in computer skills. Strictly speaking, as you can see from the example questions below, it is not Windows-specific, it is just the training organisations that use Windows to do the training.

There is no practical reason why a training company or individual shouldn't use RISC OS and its applications to train in or apply for the ECDL.

The ECDL is designed specifically for those who want to gain a basic qualification in computing to help them with their current job, develop their IT skills and enhance their career prospects. No prior knowledge of IT or computer skills is needed to study the ECDL.

The ECDL syllabus is designed to cover the key concepts of computer use, its practical applications and their use in the workplace and society in general. It is broken down into seven modules, each of which must be passed before the ECDL certificate is awarded.

Candidates obtain, usually from a test centre, a logbook listing all the modules. As they pass each module, the accredited testing body will sign the logbook. The modules may be taken in any order and over any period of time (up to three years), even all at once, offering maximum flexibility. When all the modules have been successfully completed, the logbook is exchanged for a certificate.

The seven modules that make up the ECDL are:

- Basic concepts of IT
- Using the computer and managing files
- Word processing
- Spreadsheets
- Database
- Presentation
- Information and Communication

Benefits of taking ECDL

ECDL is designed to help people at work and at home. It will confirm to potential employers that the person has a professionally recognised, relevant and up-to-date qualification and it will assist in raising familiarity with the technology and its uses.

ECDL is not like any other qualification, although it utilises the positive aspects of the best. It is fast becoming the most widely recognised qualification in the field of work-related computer use, because it is targeted at the full spectrum of the population, and because of the support and monitoring of the organisations behind it.

For teachers ECDL is very important with so much curricula emphasis on ICT. To back this up the training organisation Aston-Swann has developed the European Computer Driving Licence (ECDL) for Educators a comprehensive seven-module training programme designed specifically to help Teachers, Support Staff and ICT Coordinators develop practical computing skills for teaching and learning in the classroom.

Creating lesson plans using a word processor, managing classroom data using a spreadsheet, and effectively searching for classroom resources, are just a few of the very practical skills that can be acquired.

Designed to improve efficiency and to reduce workload, the new courseware is suitable for educators regardless of age and experience and can be delivered either face-to-face, as a self-study option, or as a combination of the two. The programme is particularly flexible and will accommodate the varying levels and phases of education suitable for In Service Training (INSET) and Continuing Professional Development.

ECDL Module 3: Word Processing

Sample Question 1
Your task is to prepare a circular letter giving notice about an upcoming annual general meeting of your local tennis club. In the test you are asked to create the letter, to apply various formatting actions to it; and to carry out a mail merge operation so that the circular can be delivered to all the members of the tennis club.

1. Open the word processing application. (1 Mark)
2. Open the document test31 from your Candidate Disk. The document is an unedited version of the circular. (1 Mark)
3. Save the document to your Candidate Disk using the file name agm (1 Mark)
4. Select all the text in the document and change the font in the document to Arial. (1 Mark)
5. Centre align the word Agenda. (1 Mark)
6. Apply bullets of your choice to the Agenda items (text starting with Election and finishing with New Club House Proposals.) (1 Mark)
7. Change the font colour of Agenda to Blue. (1 Mark)
8. Change the font size in the entire document to 14-point. (1 Mark)
9. Save the document and print 2 copies to an output printer if available, or as a print file to your Candidate Disk. (1 Mark)
10. Mail Merge: Use the file agm as a form letter. (1 Mark)
11. Open the file addrlst from your Candidate Disk. It contains an address list that is going to be used as a data source and merged with the agm form letter. (1 Mark)
12. Enter three merge fields into the agm document: Substitute the three text lines

Mary Smyth, [upper left corner of the document]

2 Fitzwilliam Road,

Dublin 4.

with the following fields in the document.

Name

Address

City

13. Merge the address list with the agm document to create the mail-merged document. (1 Mark)
14. Save the merged document as mrge31 to your Candidate Disk. (1 Mark)
15. Save all the documents and close the application. (1 Mark)

Sample Question 2
Your task is to prepare a garden centre information sheet providing instructions about watering plants. In the test you are asked to edit the information sheet, to apply various formatting actions to it; and to create a simple table.

1. Open the word processing application. (1 Mark)
2. Open the document test32 from your Candidate Disk. The text is an information sheet, which needs to be formatted. (1 Mark)
3. Save the document to your Candidate Disk using the file name garden (1 Mark)
4. Select all the text in the document and change the font to Times New Roman. (1 Mark)
5. Change the font size of the entire document to 12 points. (1 Mark)
6. Make the word Water in the final paragraph bold. (1 Mark)
7. Indent the heading, Gardening for Amateurs, to start at 3 cm to the right of the left margin (1 Mark)
8. Right align the first paragraph, beginning A weekly in the document. (1 Mark)
9. Create a header in the document and add the centred text Gardening Tips. (1 Mark)
10. Create a table with three columns and four rows after the last paragraph. (1 Mark)
11. Set the line widths in the table at 1 point. (1 Mark)
12. Complete the table with the following text inserted: (1 Mark)

Daily Watering	*June*	*July*
Plants	*Once*	*Twice*
Shrubs	*Once*	*Twice*
Grass	*Once*	*Once*

13. Centre align all the text in columns 2 and 3 in the table. (1 Mark)
14. Save the garden document and print 2 copies to an output printer if available, or as a print file to your Candidate Disk. (1 Mark)
15. Close the application. (1 Mark)



Doing the bus stop

A teacher on the Isle of Man has come up with a novel use for the next generation of mobile phone technology. Information technology teacher Alex Townsend is using his 3G handset to provide a wireless broadband internet connection for schoolchildren.

The Manx Telecomputer Bus has 21 computers on board, taking computing training to every school on the island. The O2 phone network has used the Isle of Man to test 3G technology, which promises fast net services, video clips and picture messaging on mobile phones.

The Telecomputer Bus first hit the road in 1998 and the vehicle is more than 20 years old but access has improved since the appearance of the 3G phone. "We use it to travel around the Isle of Man, bringing the big computer room experience to little primary schools," explained Alex Townsend.

In the past, the bus would have connected to a school's net connection using a cable. But this could be quite slow as the connection was shared with other pupils on the island. So Alex thought of using his 3G handset instead and tried it out. "I found the speed was so impressive that I thought 'if it can do this for one computer, what could it do for the 21 machines on the Computer Bus?" Despite sharing the connection, the speed has been impressive: "The service that children are getting through this phone is actually quicker than on their desktop machines in the school."

A waste of time and money?

400 million has been spent on a flagship government programme to transform Maths teaching in primary schools. But reports are coming through that says that standards have not really improved despite the money spent.

Nine-year-olds who had worked with the national numeracy strategy for two years were, on average, only two months ahead of those taught before its introduction, researchers at King's College, London, found. The scores of the least able were actually worse!

Meanwhile, another new study from Oxford Brookes University shows that, despite the rise in 11-year-olds' national test scores, reading and reasoning tests set by the National Foundation for Educational Research suggest that standards remain unchanged.

Worrying signs across the pond

With individual State budget deficits in the US soaring to near record levels, school technology programs from coast to coast are being slashed as policy makers and school leaders struggle to make do with sharply limited resources.

California, Indiana, Oregon, Texas, and West Virginia are some of the many states where school officials have been forced to cut back or eliminate programs that supply new computers, internet access, and instructional resources to students.

Technology is not being singled out with art and foreign language classes, school counsellors and nurses, field trips and athletic programs, and even core subject area teachers and textbooks also feeling the pinch.

But given the tough new requirements of the No Child Left Behind Act (NCLB), some observers fear cuts to critical technology infrastructure programs will limit educators' ability to track and analyze student performance data, making it difficult to meet the law's intended goal. This marks the first time in the US where a severe economic downturn has directly affected the use of computers in education.

Teachers and education specialists are saying that they will be able to tell just where American society places the importance of technology in relation to teacher salaries, school supplies, textbooks, and other basic necessities as the budget shortfalls start to be felt.

In Wisconsin, budget shortfalls are expected to exceed $3.2 billion over the next two years, Governor Jim Doyle has asked the state legislature to cut short the state's Technology for Educational Achievement (TEACH) programme. According to TEACH budget and policy analyst Mahrie Peterson, at risk is approximately $35 million per year in block grants and an additional $4 million in training resources used to boost technology infrastructures and school computer access throughout the state.

Meanwhile, in West Virginia, Governor Bob Wise has proposed cutting nearly $5 million for the purchase of computers and other technology equipment used to support the state's 281,000 students.

Perhaps most worrying for education watchers is the $2 million in potential deductions to the West Virginia Education Information System (WVEIS), a 13-year-old technology infrastructure that has allowed educators to collect data on student achievement, standardized test scores, and school financial records, including administrative costs. Were it not for WVEIS, the state would have a difficult time in meeting the rigid reporting and accountability demands established by NCLB.

About 70,000 students in Oregon have already lost access to an Internet-based research database that lets them tap into articles from newspapers, magazines, and periodicals around the world. Not a good sign in the week where an analysis of history teaching of World War II in the US is summarised as the war started in 1941 and Japan lost!

State education officials have said they plan to lobby for more funding before a final budget is passed. Still, a $250 million estimated shortfall headed into 2004 doesn't bode well for their chances.

The National Education Association has collected examples of how states and school districts have responded to the worst fiscal crisis many have faced since World War II. Here are some examples: In the high-poverty city of Baltimore, the budget crunch has seen the termination of a national pilot program designed to help parents work their way off welfare by assisting in after-school programs for their children.

In Oklahoma, 1,000 students no longer have a ride to school, as bus routes have been cut to deal with the shortages. More than 1,000 teacher positions and hundreds of support staff have been eliminated. In fact, money is so tight that some educators have doubled as school bus drivers, stepped in to mop dirty floors, and even donned hair nets to help serve school lunches.

Pam Turnbull
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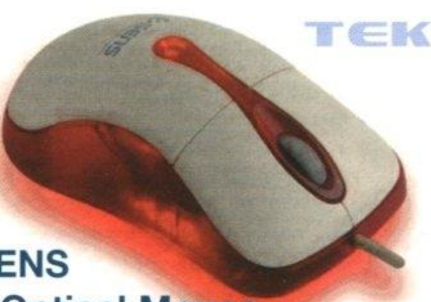
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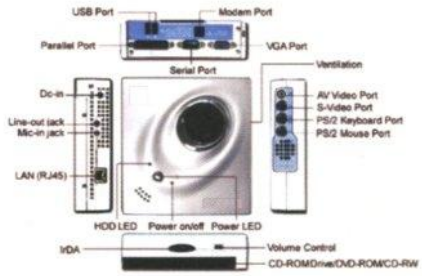
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Introducing the Cappuccino & the MiniPC Range

Is it a laptop..? Is it a PDA..? Is it a big ugly beige box to bang your knees against under your desk..? In a word NO. It's something different. HKi are proud to bring to market this new range of PCs. We know they caused quite a stir at the business start-up event in the docklands on the 19th/20th of October and you may well have seen us there on stand 124. We also know we were to busy to answer everyone's questions at the time. So this page is to help you catch up with what you missed at the show.



COMPATIBILITY
Because it is a fully functional PC and not a PDA it will run a wide range of Microsoft operating systems. It is compatible with Windows 98 SE, ME, NT 4.0 Workstation, 2000 Professional, & Windows XP, and yes it will even take Linux too. So whatever your operating environment this little chap will fit right in.

SPACE.
This computer allows you to save space. The TX-1 is of astonishing design & tiny dimensions. Measuring an amazing 156mm x 146mm x 50mm. However, size does not diminish its features. It is a fully featured PC that is ideal for any area that is low on free space: - a compact office, an exhibition stand, for training seminars, school computer rooms, hotels, internet cafés, work and home environments.

LIGHT
With the unit weighing around 1140g, the total "travel weight" of the TX-1 is approximately 1620g: Power adapter (480g) + computer (1140g). This allows you to travel light. When coupled with a projector this makes it excellent for demos,presentations, exhibitions, shows & computer based training seminars

PORTABILITY.
You can carry all your data in this Computer because with 30 GB of internal disk space there is no need for zip drives, memory sticks, floppies, Jaz drives or complex office synchronization features.

POWER
The external power supply is no different from those that you see on many portable devices. Except that the power supply for the cappuccino is a standard size and gives you the 100v-240v range enabling you to plug it into US, UK, European and continental power supplies through the use of the normal everyday socket adaptors.

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Because it has TV out, you don't even have to buy a screen for home, you can plug it into your TV or Video Amp using the TV-out socket. Thus you can save yourself the cost of a screen. S-VHS/Composite video cable comes supplied.

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All about Softease

Programming is an art that has very solid fundamental rules. Some programmers are better than others and some programmers do more planning than others. Possibly one of the best programmers in the RISC OS market is Geoff Titmuss.

He's a programmer that plies his art in the way that most other programmers wish they could. He designs his programs thoroughly, using formalised methodology, before he goes near the code.

It was way back in the early '90s that Geoff decided to write a word processor/DTP package that was logical and easy-to-use. Which was how the original TextEase was born and the system he wrote it on was RISC OS.

The natural progression was the inclusion of speech which proved particularly useful for developing literacy skills. Textease can be set to speak as you type, part words, single words, sentences or the entire document which has given teachers remarkable results, especially in younger learners and those students with special needs.

Textease evolved still further into Textease Multimedia, allowing video, sound, links and animations to be used as well as the ability to save as HTML for Web page creation. With the National Grid for Learning and the increasing importance of the Internet within education, Textease Multimedia has become the standard against which the others are measured. With the latest refinements and features added to take this product into the new millennium came its new name, Textease 2000.

The use of ICT across the spectrum of subjects in education sees a new exciting range of products from Softease and a new flagship product emerging, Textease Studio. The Studio is an essential selection of ICT tools designed to simplify teaching of the curriculum in schools. The Studio consists of Textease 2000 (the latest version of Textease Multimedia), Textease Primary, Textease Spreadsheet and Textease Database.

Each component of this educational toolbox can be used as a stand alone application or as a fully integrated, single piece of software; the Textease Studio. Studio Plus further adds Paint, Turtle, Branch and Presenter products to this list.

Textease 2000



Textease 2000 is the original 'click and type' word processing and desktop publishing package. Suitable for all writing and publishing tasks at school and at home, its ease of use and configurability make it as ideal for 5 year olds as it is for adults.

As a word processor Textease 2000 has all the usual features you'd expect and more, including the power of 'drag and drop' text editing and 'check as you type' spell checking. The fully configurable word banks aid word association and improve literacy skills by linking words, pictures, sounds and video.

Using Textease 2000 as a desktop publisher allows you to incorporate digital photos, images and clip-art (all easily selected from the picture browser) into your documents.

Creating multimedia presentations is straightforward. Just build on the word processing and desktop publishing skills learned so far, and then add videos, sounds and animation. If you want to produce more sophisticated presentations you can, for example, link pages together, add your own buttons to start videos and animations and even record your own commentary.

Softease Database



Softease Database lets you to set up a database quickly and easily whether you are using it to complete a class survey or collating and graphing the results of a scientific experiment.

As much of the data layout and report functionality has been based on Textease, Database gives you the flexibility you'd normally expect from a desktop publishing package.

You can publish results directly from your database to the Web or send them directly via e-mail. Database is the ideal tool to manage your digital photo, video and sound libraries using the external link facility.

Data analysis is simple using powerful search, sort and querying facilities. Chart plotting is easy. Database allows you display your charts within desktop published documents and reports. With data still dynamically linked to your database you can change it and your report will update too.

Softease Spreadsheet



Spreadsheets affect every area of the curriculum where it adds a new dimension to learning. Ease of use is the key to Softease Spreadsheet. Calculations are quick and easy using the intuitive function facility.

As you'd expect with a Softease program you can lay out one or more spreadsheets on a page. You can add text around the spreadsheets and charts, producing complete documents without having to embed your spreadsheet within another package. Spreadsheet is also WYSIWYG (What You See Is What You Get) when it comes to printing your work, making it ideal for producing work sheets or writing up experiments.

Textease Studio



Textease Studio, comprising Textease 2000, Spreadsheet and Database, is a suite of powerful ICT tools designed to meet the basic requirements of all UK curricula.

All the component programs have been designed to integrate fully with each other, making Studio a unique suite of software. A key benefit of this design is that once you've mastered one of the tools you are well on the way to mastering the others.

Each product within the Studio is fully configurable, allowing progression from the youngest of primary school children to adult users.

Softease Branch



Softease Branch is a branching database program that allows pupils to sort and classify information in a fun and imaginative way. By providing "yes" and "no" answers to questions which they formulate themselves, pupils learn to classify information and gradually build up a database. This provides an ideal introduction to the techniques used, for example, in the classification of plants or animals.

Answering the questions gradually builds up a tree, which can be viewed on-screen, together with the question/answer pairs that lead to this point. If larger trees are created, the poster printing facility enables the whole tree to be printed onto A4 sheets, for assembly into a classroom poster.

Since Branch incorporates all the power of Textease 2000, full multimedia functionality can be added to your branching database. With a wide range of Textease 2000 desktop publishing features available, you can customise your branching database with interesting backdrops and text-based explanations.

Softease Paint



Paint has been designed to develop children's creativity, while at the same time developing their understanding of colour. Stamps and special brushes facilitate the creation of sophisticated images relatively easily, boosting pupils' self esteem and confidence in their abilities.

Paint includes a selection of realistic media to work with: these include paint, watercolour, charcoal, felt-tip pens, crayons, stamps, tubes and picture brushes. There are many effects which can be used including smudge, blur and clone; these can be combined with the symmetry tools to draw an image many times simultaneously.

There are special tools such as "red eye" removal, or the "region tool" to draw around an object on the page before adjusting its contrast or brightness or turning it into an irregular mask.

Softease Turtle



Softease Turtle is a very flexible control program which handles all aspects of turtle graphics. It starts with the simple movement of a single object, and progresses to complex programming and control over multiple objects.

At the easy level, the on-screen buttons are used to control the movement of a traditional turtle, optionally leaving a path trail of graphics.

Sequences can be pre-set and run as scripts to create repeating patterns. This introduces simple programming and control concepts to students. Embed scripts within other scripts for a powerful, yet simple programming language.

Any Textease object can be named and used as a turtle, whether it is a simple shape, a photograph or clip-art. Control as many of these turtles as you wish, to demonstrate more complex programming, provide an interesting multimedia show, or as an ideal way to create animations.

Softease Languages



Textease Language Packs are an additional software tool for students learning modern foreign languages. It works with Textease 2000, Textease Studio and Textease Studio Plus and enable students of all ages to create documents, spell-check their work and have the text spoken back to them in the language of their choice.

The spell checker and auto-accent options intelligently give suggestions where required, or place the correct accent on the characters within f oreign words as they are typed. Simply type the word using the non-accented letter and Textease will add the accent for you. (If there is a choice of accents Textease will display these in a list). All menus and dialogues are changed to the language in use. This makes these products invaluable for the teaching of modern languages in schools.

Softease Presenter



Build your presentation using the familiar interfaces of any Softease program. Any work created originally in Textease 2000 can be used directly in Softease Presenter so presentations can be built up from digital photos, video, sound, text and clip-art. The program also fully integrates with Softease Database and Softease Spreadsheet, making it very easy to include graphs and tables within your presentation.

While presenting, you can draw ttention to key items by circling them with the pen tool. Alternatively, you can hide items so they can be revealed by clicking, thus providing scope to expand or shrink the presentation as it progresses.

Softease Resources



Softease National Curriculum Packs have been created to help teachers cover key areas of the National Curriculum. Each pack contains activities which utilise one or more components of the Textease Studio range. Videos, Word Banks and Multimedia make each of the packs both stimulating and educational. The Packs are upported by comprehensive Teachers Notes and Students Activity Sheets.

An extensive range of Softease National Curriculum Packs will become available throughout the year covering a number of the key stages and subjects. As always, a selection of our free resources are easily downloaded from our Web site.

The Softease National Curriculum packs are topic-based sets of activities and resources matched to the National Curriculum programmes of study.

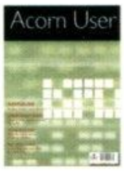
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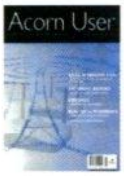
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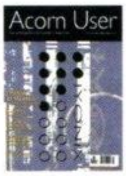
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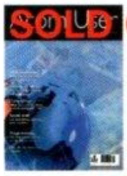
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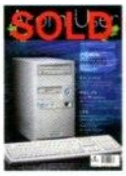
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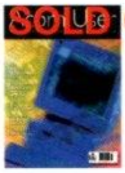
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Cost of ownership

The mindless adoption of PCs across the board in schools has been something that has annoyed a lot of people. One of those people is David Foss who has been a RISC OS user for many years. However it didn't just annoy him, he decided to do something about it.

In fact David has enquired of every local authority in the country exactly how much they are paying to maintain the PCs in the system. Some of them wouldn't tell him but some did and the following letter (with some details omitted for length and restricted content) was sent out those who took part.

David gave us a copy of the letter and when we suggested that we would like to reproduce it he had no objections, only a few concerns about some of the authorities who did not want the information bandied about. We have endeavoured to follow the restrictions of those authorities where appropriate.

Anyway we hope that you are interested in this information, it may be preaching to the choir, but it's worth having your favourite opinion backed up by some facts. So from here we will hand over to David Foss:

SURVEY OF COST OF MAINTENANCE OF PERSONAL COMPUTERS

Thank you for assisting in the compilation of this unofficial survey. I hope it will provide you with food for thought as you draw your own conclusions about its contents.

This survey of the comparative costs of maintaining Reduced Instruction Set Computing Operating System, Apple Mac OS and Windows computers using an average cost per computer per annum commenced in mid-2000. It was completed in late 2002 and I am sending you this copy of the results because you responded positively or negatively to my original request for information.

This exercise has been purely to make available information on a topic on which there has been remarkably little investigation overall considering the enormity of the amount of money which is spent on Information Technology.

My only personal comment is that, speaking as a taxpayer, I am deeply disappointed that the cheaper, British Reduced Instruction Set Computing Operating System has been virtually ignored completely. Instead huge amounts of taxpayer's money have been lavished on the support and development of American technology in computers, the inherent instability and unreliability of which has saddled the British taxpayer and customers with huge annual maintenance bills.

However, I stress that this is a personal layman's observation which I realise will not be acceptable to anyone whose knowledge of computers is limited to Windows. Nevertheless, I do agree with the comments of Mr B Stubbs of Sexey's School, Bruton, Somerset which utilises both RISC OS and Windows platforms. He said, in an article in the magazine 'Computer Shopper', "You have to have a vision of what IT is for, not keeping up with the latest hardware and throwing money at it. It should serve, not be the master. The more you go to the Microsoft side, the more you need support - a whole industry has grown up of people who make their money from people who don't know how to keep their computers going."

This extract from an e-mail expresses an attitude shared by most of the refusers:

"Dear Mr Foss

"Your letter of ... has been passed to me as the Council's Head of ICT services ... I must decline to provide any figures for [council name omitted] because they are meaningless out of context.

"Yours faithfully [etc]

"This e-mail is sent for the recipient only and may not be disclosed further without the express consent of the sender."

The response to an e-mail requesting this express consent received this reply:

"You have given me no indication of any purpose for which you wish to use my comments or for which you wish to classify our refusal. I do not understand the purpose of your request nor do I understand whom you represent (individual, company or special interest group).

"Therefore I regret the restriction on disclosing my response still stands. [sign off etc]"

The purpose of quoting the above reporting restriction is [to] demonstrate that I have abided by the requests of the responders who, nevertheless, sought anonymity. Those Councils who did give a figure of costing but issued a copy of the above restriction will find their identity has been protected.

An interesting aspect of the survey is the almost total dependence on the American Windows Operating System which is highly expensive to maintain when compared with the British RISC Operating System. The latter was a feature in education in past days and still is where schools wish to keep costs to a minimum and have been able to resist pressures from the outside to turn to Windows. An example of costs submitted by such a school is included for the purpose of comparison although the sample is too small for official acceptance of the figures.

From a High School in Worcestershire who wrote in reply to my request for details of RISC OS cost:

"Not sure I can help but I will try if I can. Firstly [my] school went down the PC hole some time back, the last of the RISC OS stuff went nearly two years ago.

"The yearly IT budget used to be sub £2000, this covered consumables, text books, software and hardware. We had around 100 Acorn machines, very few above A4000 spec of which 60 were networked. Replacement network cards and computers were obtained second-hand, network cable was sourced from the car boot. These days we're flush with NGFL money, so are shackled into a disgraceful PC managed service courtesy of a departing deputy head. This costs £100 per machine per annum. It prevents you from being able to install any software or change any system settings. It doesn't cover any form of hardware failure, that's out problem to fix/buy replacements. All the dull stuff like backups/basic user management and print queues is ours - wooo! And to top the fun, we're only allowed 30 odd 'operational changes'; so better ration these software installations and no changing printers if you can avoid it.

"The maths of buying a PC box comes out at about £1000 per machine so we lease the stuff and now have a huge lease expense to worry about every year, all because we have to have 1 computer per 7 students which equates to over 200.

"And at the end of the lease we still have to buy them off, if we want them."

I hope that you will find these figures of some interest and relevance. So far as I, personally as a taxpayer and customer, am concerned, I find great sadness in the rejection by administration and business in the United Kingdom of the cheaper, more reliable and efficient British Operating System in favour of the hugely expensive-to-maintain and far less reliable American one.

Yours sincerely

David Foss

foss.family@argonet.co.uk

We are going to omit the full detail on the survey, David did provide a table of every local council that replied and the type of reply he got, including the type of calculation done to find out the cost of ownership. There are several standards in this respect.

So let's just look at a general overview of the costs bearing in mind the RISC OS cost was less than £20 per machine. The lowest PC cost quoted was £50 with the council concerned using its own calculation method. The highest was £1398 (per machine don't forget), using one of the recognised calculation methods. The average was in the region of £400-£500 per machine per annum.

Some other information was provided by another respondent who probably wanted to include it as a comparison for their £800 per machine, but it is of definite interest to us. A MORI poll has concluded that cost per user in IT across various sectors are:

542	*Construction industry*
887	*Other services*
1115	*Retail/wholesale*
14,000	*Computer services*

That last figure is not a typo but one probably has to consider different types of system and the support perceived as required.

David had a few more things to say at the end:

On a personal note, I made reference in my introductory letter to the fact that enormous amounts of taxpayers money has been lavished on the support and development of American technology in computers, the inherent instability and unreliability of which has saddled the British taxpayer and customers with huge annual maintenance bills.

The practical result of failing to develop the British RISC Operating System is the formation of the popular view that the American Microsoft Windows System, albeit hugely expensive to maintain and support as the figures in this survey indicate, is the only desktop computer operating system available.

Hereunder is a very lucid expression of this generally accepted view as submitted by one of the respondents:

"The decision to select the IBM PC-compatible/Windows computer platform is based on the following criteria:

- The hardware (as opposed to Microsoft's software) is non-proprietary and is available from a very wide range of competing suppliers which serves to drive down prices, guarantee availability and avoid dependence on one hardware supplier.

- The IBM PC-compatible/Windows computer platform is dominant nationally and globally which means that a wide range of software is cheaply and readily available and, as a result of its global dominance, software is increasingly developed for this platform alone.

- Microsoft's products are the de facto standard in both the public and the private sectors which helps with staff recruitment, facilitates the ready transfer of skills and helps to reduce training requirements.

- The use of Microsoft software computer packages in schools means that students gain skills that are readily transferable to the world of work.

- Most software packages for teaching and learning are produced in this format.

- Virtually all management and administrative packages used in schools run on the IBM PC-compatible/Windows platform.

- The platform seems likely to be dominant for the foreseeable future and is, therefore, well suited to provide a stable and sustainable ICT environment for schools. The RISC OS operating system does not appear to fulfil any of these criteria, nor does it seem likely to be capable of doing so in the foreseeable future, if ever. It could not, therefore, be recommended to schools as a viable alternative to their current provision."

That's what David Foss and some of his correspondents think. But what do you think? Let us know.

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Audio in socket
Microphone socket
Audio out/Headphone socket
Video
4 x USB (2 front, 2 rear) – USB-to-parallel cable also available

INTERNAL CONNECTORS

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32-bit EASI podule expansion socket (2 slot backplane required)
FDD connector (occupied)
DDR RAM socket (occupied)

PCI EXPANSION

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1 – USB 1.1 expansion card USB,
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